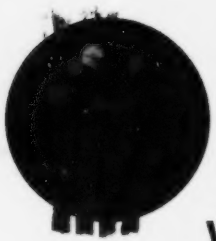
THE GENESIS

Annual Report
2002 - 2003



FOOD
DEVELOPMENT
CENTRE
Your Future in Food

A Special Operating Agency of
Manitoba Agriculture and Food

Manitoba

Minister of Agriculture and Food

Room 165
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

His Honour
The Honourable Peter M. Liba
Lieutenant Governor of Manitoba
235 Legislative Building
Winnipeg MB R3C OV8

Your Honour:

As Minister Responsible, I have the privilege of presenting, for the information of Your Honour, the Annual Report of the Food Development Centre for the fiscal year ended March 31, 2003.

Sincerely,

Rosann Wowchuk

Rosann Wowchuk
Minister

Manitoba

Deputy Minister of
Agriculture and Food

Room 159
Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8
(204) 945-3734

The Honourable Rosann Wowchuk
Minister of Agriculture & Food
165 Legislative Building
Winnipeg, MB R3C OV8

Dear Minister:

I have the privilege of presenting to you the Annual Report of the Food Development Centre (FDC) covering the year ended March 31, 2003. It has been an honour for me to serve as Chairman of the Advisory Board for the Food Development Centre.

With the assistance of that Board, management and staff have successfully assisted Manitoba's agri-food industry to contribute an additional $1.2 M in GDP and $108,900 in provincial taxes to the Province over the next 5 years.

Yours sincerely,

Don Zasada
Deputy Minister

FOOD DEVELOPMENT CENTRE

Bringing ideas to market

Don Zasada
Deputy Minister of Agriculture and Food
Chair, Advisory Board
Food Development Centre

Dear Mr. Zasada:

It is my pleasure to present the Annual Report of the Food Development Centre (FDC), for the year ended March 31, 2003. This report outlines the accomplishments of the Food Development Centre that have been achieved in fulfilling the mission to facilitate the creation and expansion of agri-food businesses to generate wealth for Manitoba and Manitobans.

The management and staff are particularly proud of the following achievements, which clearly indicate FDC's past success and benchmark FDC's role in economic development:

- ***the creation of growth by 11 new employment opportunities;***
- ***the servicing of 37 projects;***
- ***the development of 14 new food products;***
- ***the presentation of 2 leading-edge technology training seminars;***
- ***the training of 76 individuals at the leading-edge technology seminars***

We thank you for the ongoing support of both yourself and the department. We are proud of the success of our clients and of the role we have been able to play in the economic growth of Manitoba.

Yours sincerely,

Dave Donaghy
Chief Executive Officer

Box 1240 • 810 Phillips Street • Portage la Prairie, Manitoba • R1N 3J9
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A Special Operating Agency of Manitoba Agriculture and Food

104-00422/

IN 2002 / 2003
THE ACTIVITIES OF THE FOOD DEVELOPMENT CENTRE RESULTED IN

the creation of eleven new jobs,

the development of fourteen new food products and

the creation or expansion of eighteen food processing companies,

as well as a contribution of $1.2 million to the GDP of Manitoba

and $108,900 in provincial taxes

over the next

five

years.

THIS IS THE GENESIS OF FDC.

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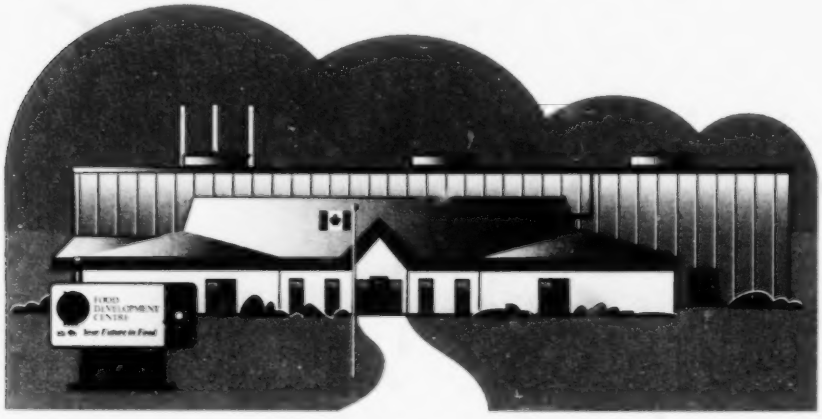

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THE GENESIS

The Beginning

The Food Development Centre (FDC) originated in 1978 as a different entity allied with other government spheres. It began with another name, a much smaller infrastructure, a different set of service lines and fewer staff.

On December 16, 1999, a fundamental change at FDC took place that has led to great plans and great success at the Centre, in the agri-food industry and in the Province of Manitoba. FDC became a special operating agency of Manitoba Agriculture and Food (MAF).

The focus of FDC has been to see Manitoba grow as a leader of food development and value-added processing. The belief of MAF was that, through combining its resources and departmental talents with those of FDC, a strong and seamless approach to the development and support of Manitoba's agri-food industry could be accomplished.

A five-year Strategic Plan for FDC was created in 2000, in which the Centre would make and implement recommendations that would allow it to reposition itself in relation to MAF and other service organizations in the agri-food industry. The Centre has maintained its vision and mission, and staff have worked diligently to achieve the goals the Centre has prescribed for itself.

A request from FDC for funding approval has been granted by several levels of government. A new motto for FDC has been created in order to reflect the direction, mission and operations of the Centre. A new building and renovations have been designed to expand the operations of the Centre and to receive federal accreditation. A partnership with Great Plains Aseptic Processors (GPAP) has been embarked upon. A capital acquisitions plan has been implemented to provide staff and clients with the use of technologically advanced processing and laboratory equipment to support the vision, mission and goals of the Centre.

The plan has been all-encompassing and the changes at FDC in the past year have been vast in scope. It is only the beginning of the plans and changes that have been set in motion and are eagerly anticipated. Results have already begun to show themselves.

We call all of this ***The Genesis***.

The FDC Vision

Increased employment and wealth through enhanced development of Manitoba as a global source of high quality food products.

The FDC Mission

The Food Development Centre provides leadership in the creation, expansion and diversification of the agri-food industry through its industry networks and its expertise in food processing.

The Goals of FDC

- To provide up-to-date, unbiased technical information to the agri-food industry, with emphasis on leading-edge technologies in product and process development.
- To provide technical and federally accredited pilot plant services for the production of safe, high quality and wholesome food products.
- To provide Manitoba with a unique liquid food packaging facility through a partnership with Great Plains Aseptic Processors.
- To provide education and training to industry through technical seminars and workshops.
- To create awareness of value-added processing of agri-food commodities and promote the capabilities of the Food Development Centre.
- To promote the creation of a seamless agri-food development process within Manitoba Agriculture and Food, from idea conceptualization to product marketing.
- To ensure co-ordination and effective use of resources across the agri-food sector by liaising with industry, academia and government.
- To participate in co-operative projects that will influence the production of primary products that may be processed within Manitoba.

Your Future in Food

The vision, mission and goals of FDC have been concentrated into a simple but striking slogan that is simultaneously an intention, a promise and a description. The FDC motto — *Your Future in Food* — carries the implication of planning, positive changes and leadership in the agri-food industry in Manitoba.

The FDC motto is commensurate with the broader *Destination 2010* vision of Manitoba Agriculture and Food, signified in the tagline *Your Future in Farming.*

STRATEGIC PLANNING IN MOTION

Fundamentally

FDC was established as a Special Operating Agency (SOA) on April 1, 1996 in the department of what was then Manitoba Rural Development (superseded by Manitoba Intergovernmental Affairs). On December 16, 1999, retaining its SOA status, FDC became part of MAF within the Agricultural Development and Marketing Division.

FDC operates outside the Consolidated Fund under the Special Operating Agencies Financing Authority, which has a mandate to hold and acquire assets required for and resulting from Agency operations. FDC manages and accounts for related assets and operations on behalf of the Financing Authority.

FDC fully supports and participates in MAF's Sustainable Development Initiative under the Sustainable Development Act. FDC's accomplishments and activities are included in the MAF Sustainable Development Procurement Plan and Procurement Report that are submitted by the Department to Procurement Council each fiscal year.

FDC is directed by a management team under leadership of a Chief Executive Officer (CEO). The management team consists of the General Manager, the Technical Manager and the Business Development Manager (see Appendix I). Guiding the management team is an Advisory Board (see Appendix II) that is chaired by the Deputy Minister of MAF.

Monthly, quarterly and annual reports are generated, documenting the activities of FDC and allowing for the appraisal of the performance of the Centre against its stated goals for any given time period.

FDC has five broad service lines.

1. Product Development
2. Process Development
3. Information Services
4. Technology Transfer
5. Educational Services

In all the operations of FDC, the following six key operating standards are adhered to.

1. Maintaining total client confidentiality
2. Providing industry with up-to-date technological information and product and process development services that make it competitive in the global market
3. Maintaining a federally accredited pilot plant
4. Assisting in the production of high quality, wholesome, safe food products from Manitoba
5. Delivering high quality services on time and on budget
6. Maintaining fair and competitive pricing practices

Give Us Five Years

As of November 27, 2001, FDC was proud and gratified to be advised that its five-year Strategic Plan was approved.

Seven long-term success factors had been identified as integral to realizing the FDC vision.

1. FDC must act as a pivotal point for industry, serving as both leader and liaison, to assist industry in attaining and maintaining a competitive position within its markets.
2. FDC must measure its success based on its ability to facilitate the generation of economic development within Manitoba.
3. FDC must be able to provide a federally accredited pilot plant that provides industry with the opportunity to develop products and processes that will enable it to gain access to markets throughout the world.
4. FDC must be able to provide leading-edge technology to industry through maintaining an inventory of up-to-date and competitive processing equipment.
5. FDC must capitalize on the strengths of strategic alliances to maximize program delivery, while maintaining economies of scale.
6. FDC must employ a stable complement of technically qualified professional experts.
7. FDC must use its educational services as a vehicle to bring industry and technology together, creating opportunities for itself and its stakeholders.

Operating Guidelines

The Strategic Plan is appropriately titled *Moving Manitoba to a Processor of Food Products*. The following eight operating guidelines have been identified in the Strategic Plan.

1. Capitalize on FDC as an engine of economic development rather than of revenue generation. This involves increased support to small clients to maximize their contribution to the economic development of the province, while continuing support for established larger companies to provide specific services, and maintaining FDC's technical expertise and credibility.
2. Create a seamless MAF agri-food development process. This process includes idea conceptualization, financing, product / process development, production and marketing stages.
3. Develop a program to continuously source the globe for relevant food products and technologies, and introduce these to the Manitoba market through seminars, demonstrations and one-on-one consultations.
4. Update facilities and equipment to competitive and representative levels to meet current and emerging needs and trends.
5. Be a source of technical training in the food industry.
6. Continue current and initiate new comprehensive FDC promotion to the industry.
7. Address special industry projects when similar services are not readily available or where immediate technical expertise is required.
8. Ensure the provision of services to new and smaller operators, recognizing their need for local, comprehensive assistance, while at the same time offering specific services to larger companies.

The Third Year

The 2002/2003 year has been the third year in the strategic planning process. It has been a year of repositioning FDC as a powerhouse of economic development in the value-added sector of the agri-food industry. It has been a year of manoeuvring the Centre into position to become an engine of export opportunity for Manitoba agri-food companies.

Recommendations

In *Destination 2010: a Strategic Roadmap for Agriculture and Food*, MAF identified that "the economic prosperity of our agriculture and food sector can be expanded through increased diversification and value-added activities, providing it with a more stable economic foundation." The following five recommendations that FDC made in its 2002/2003 Business Plan directly fuel the economic engine for value-added processing in Manitoba.

1. Processing of Manitoba's three core commodities – meat, fruits and vegetables, grains and oilseeds.
2. Renovating the existing facility to include a federally accredited (CFIA) pilot plant.
3. Establishing with GPAP (using Tetra Pak technology and equipment) a commercial-scale processing and packaging facility for liquid products, unique to North America.
4. Implementing a five-year capital acquisitions plan to obtain new equipment in the technology lines of extraction, packaging, milling, frying, freezing and drying.
5. Strengthening the role of FDC as a liaison and a leader in supporting the MAF *Destination 2010* vision by reinforcing the marketing, education and information service lines.

Federal registration is essential for Manitoba companies to be competitive in exporting products inter-provincially and internationally.

Success

FDC launched the third year of the strategic planning process with great success. On April 26, 2002, the federal, provincial and municipal governments announced their approval of the FDC funding request for $10.9 million (see Appendix III).

Minister of Manitoba Agriculture and Food Rosann Wowchuk announces funding approval at FDC on April 26, 2002.

FDC had sought funding approval under the economic development agreement, access to loan authority for capital acquisitions and building renovations, and funding approval for interest and principal payments on loans. All requests were granted in the joint funding announcement. The $10.9 million funding announcement came from the following sources.

1. Province of Manitoba – $7.887 million (long term capital loan authority with loan to be repaid through FDC annual provincial grant).
2. Government of Canada – $2.977 million (interest on Gross Revenue Insurance Plan).
3. City of Portage la Prairie and Rural Municipality of Portage la Prairie – grant in lieu of taxes of approximately $800,000 over eight years.

Later in the year, this was increased to $11.175, with the additional funding coming from the Canada-Manitoba Adjustment Program surplus interest.

Of the funding, $2.4 million was allocated towards the rejuvenation of the existing FDC pilot plant. A bay for GPAP operations required $1.4 million of the funding. $7.1 million was committed towards the purchase of advanced technology for the pilot plant and product development laboratory.

Minister of Manitoba Agriculture and Food Rosann Wowchuk (right) congratulates John McAllister of GPAP (centre) and Vesa Tempakka of Tetra Pak on the partnership with FDC at the April 26, 2002 funding announcement.

In addition, GPAP will contribute $4.1 million in equipment to create a unique liquid food processing and packaging facility. GPAP will be funded through private equity investment. There will also be support from the Agri-Food Research Development Initiative (ARDI) in the form of 213 hours of research and development each year for five years, for a total value of $1.36 million.

The expected lifespan of the new equipment and facility is fifteen years. From the $11.175 million investment, the following economic benefits over these fifteen years (2001/2001 to 2016/2017) have been calculated.

1. Manitoba's Gross Domestic Product (GDP) will be increased by $124.5 million.
2. Provincial tax revenue will be increased by $18.1 million, including $5.5 million from FDC direct operations and $777,000 from new investment in facility and equipment.
3. Over the first five years 385 new jobs will be created and 100 jobs will be created each year thereafter.

AND... ACTION!

Dependent upon complete funding approval, FDC outlined several action plans in the 2002/2003 Business Plan. Initial timelines in the original Strategic Plan have been adjusted to coincide with the various approval processes.

Marketing, Educational Services and Communications Plan

The positive changes at the Centre have been communicated to all stakeholders, including farm families, existing clients, potential entrepreneurs, current industry, funding partners, municipal governments, other provincial departments and academia. The news has been communicated through a great deal of media coverage (see Appendix III) and business development activities at the Centre (see Appendix IV).

The news conference on April 26, 2002 was the launch pad for the year of change. Delegates from various stakeholder groups were present in large numbers to hear the Manitoba Minister of Agriculture and Food announce the funding and partnership.

The announcement included the location of the new facility, the renovations that are being planned, the new technology that has been acquired and the partnership between FDC and GPAP.

The *agora* newsletter was published twice during the year, with front page stories about the funding approval and imminent evolution at FDC. As well, a set of web pages dedicated to news about capital acquisitions and renovations has been mounted on the FDC website.

Operating Plan

It was determined to be much more cost-effective to renovate the existing facility and add a bay for GPAP operations rather than construct a brand new building. This confirmed the decision for the improved FDC to remain in Portage la Prairie. The location is centralized and convenient for rural municipalities, where many of FDC clients operate. The location is 70 kilometres west of Winnipeg.

The new building and the renovations have been designed with CFIA registration in mind, building requirements for federal accreditation into the very infrastructure of the operations of the Centre. CFIA approval was granted in the fourth quarter of the year. The tender for a construction company was posted in the fourth quarter.

The capital acquisitions portion of the Strategic Plan is well underway. Throughout the year various equipment was researched for availability, cost and applications. Much of the new equipment arrived in the third and fourth quarters of the 2002/2003 year (see Appendix V).

Alliances Plan

Strategic alliances with the Richardson Centre for Functional Foods and Nutraceuticals (RCFFN), National Centre for Agri-Food Research in Medicine (NCARM), food processing centres in the other provinces and food processing equipment suppliers have been capitalized on in the past year as a result of the Strategic Plan developments.

Areas of similar and different operations have been identified at FDC, RCFFN, NCARM and other research and development facilities in the province. FDC's capital acquisitions have been made with the consideration of avoiding duplication of services with other research and development facilities. Funds have been strategically used to acquire equipment that will benefit the entire agri-food research community and allow for the various centres to play complementary rather than competitive roles.

Food processing equipment suppliers have been invited to deliver presentations to FDC staff about equipment applications. Other food processing centres, for example in Saskatchewan and Alberta, have recently renovated and expanded their own facilities. FDC has benefited from these recent similar experiences in proceeding with the Strategic Plan recommendations.

Human Resources Plan

A cost-free wellness program has been developed during the 2002/2003 year. Staff are encouraged to submit ideas for programs that employees can participate in for a healthy and enjoyable work environment.

The group benefits plan and the FDC Human Resources Manual have been reviewed and changes for greater employee satisfaction are under consideration to achieve compatibility with the plan of the Government of Manitoba.

New policies for human resources and staff development are also under consideration and will be implemented in the 2003/2004 year.

Genesis Through Teamwork

Immediately following the funding approval announcement on April 26, 2002, a full-day retreat for the entire FDC staff took place.

Eight areas of focus in The Genesis had been identified by the management team.

1. Building Team
2. Equipment Team
3. Financial Implications Team
4. Computer Team
5. Customer Liaison Team
6. Sod Turning Team
7. Strategic Alliances Team
8. GPAP Team

The eight teams consist of FDC staff and selected external people representing the *Winning Combination* partners. Each team is chaired by a champion. The champions for the eight teams are Dave Donaghy, Pat Scott, Markus Schmülgen, Karen Templeton, John McAllister and Alphonsus Utioh. The team champions comprise a steering committee, which in turn reports to the management team. The management team reports to the FDC Advisory Board before proceeding on major activities. Manitoba Transportation

and Government Services (TGS) is the building construction manager.

The three main workload teams are the Building Team, the Equipment Team and the Computer Team.

Building Team

Every inch of the current FDC building was reviewed and realistic plans for incorporating required technical standards were made.

The Building Team reviewed the Strategic Plan in detail and established operating relationships between technology and deliverables. They evaluated construction alternatives and facilitated the decision to build a new pilot plant. The Building Team prepared detailed programming information based on those relationships, to be used by the engineer in developing conceptual drawings. They evaluated technological alternatives and facilitated the decision to construct an explosion-proof room in the cereals and oilseeds suite.

The Building Team prepared a detailed layout of placement of equipment within the pilot plant, and associated utility requirements for use by the engineer. They compiled an intensive prerequisite document for use by the engineer in meeting with the CFIA for obtaining federal accreditation.

The Building Team facilitated the confirmation of Norrie Engineering as the lead contractor for the building project under the management provided by TGS, and Tower Engineering as the architect. Designs for renovations have been developed. The Building Team determined that it is economically more feasible to build new pilot plant bays beside the existing FDC facility rather than to renovate the pilot plant.

Equipment Team

Many of the recommendations for the building construction and CFIA approval depends on detailed equipment specifications. The Equipment Team identified, researched and recommended appropriate equipment to meet technological requirements of the Strategic Plan. The amount spent on equipment during this year totalled $430,538.98.

Computer Team

In November 2002, the computer infrastructure at FDC was moved onto the provincial data network (PDN) under the leadership of the Computer Team.

FDC is grateful for the guidance and help of MAF Information Technology staff, which resulted in major developments. The computers at FDC now have a very high speed (two megabits per second) connection to the PDN. All computer hardware has been updated, replacing ten-year old equipment in some cases. New printers have been installed, which is essential to the production of high quality print material for client correspondence.

RESULTS RESULTS RESULTS

Despite constrained opportunities and expected downtime, FDC activities in 2002/2003 resulted in:

- Successful negotiation of a federal / provincial funding agreement.
- Initiation of facility renovations and revised capital acquisition plan.
- The acquisition of 28 pieces of equipment (value of $430,538).
- 37 projects, resulting in the development of 14 new products, the creation or expansion of 18 food processing companies, nutritional analysis of three food products, in-plant troubleshooting for one company and the creation of 11 new employment opportunities in Manitoba.
- Increase of $1.2 million (five-year impact) to the province's GDP.
- Increase in provincial tax revenue of $108,900 (five-year impact).
- Increase in annual provincial tax revenue as a result of the $388.5 reinvestment.
- Fee for service revenue of $140,843.
- Fee for service revenue through NRC of $54,958.
- Lease income of $7,592.
- The presentation of two seminars.

Library and Information Services

The library continued to act as a key source of agri-food technical and business information for staff, clients, students, industry and academia. Literature searches and labour-intensive reference services were provided without interruption during the year of planning. Many loaned books and journal articles provided. The library's catalogue and serials database were redesigned to become much more efficient, as a result of changes from the desktop transition.

A popular acquisition in the FDC library.

The library took responsibility for reviewing and consolidating four separate and overlapping mailing databases at FDC to create one master mailing list with 2,970 important industry, government, client and academic contacts. The single master mailing list is used selectively for distribution of *agora* and FDC training event announcements.

The library maintains the FDC website. The exciting changes taking place at FDC are the highlight of the website; which is frequently updated and provides online access to the FDC library catalogue.

The librarian has completed the cataloguing of the holdings of the Veterinary Services Branch (MAF) library.

Product and Process Development

In the past year, the product and process development staff have been intrinsically involved on the building and equipment teams. Despite the heavy focus on planning for building and capital acquisitions, there has been a great deal of client activity.

The following projects for Portage la Prairie clients were begun or completed:

- apple snacks
- trials for functionality of oat flour in snack foods (Can-Oat Milling)

Winnipeg and Portage la Prairie client projects:

- business expansion (Fresh Hemp Foods)
- hemp beverage, hemp snack, hemp butter
- hemp protein

Projects with Winnipeg clients:

- honey butter (Wittmann International)
- honey dill sauce (Greetalia) – expansion from selling product in retail outlets (Superstore, Safeway) to include supplying product to Denny's Restaurant
- candies
- oatmeal cookies
- salsa
- pickled beets, dill pickles
- Caribbean rum cake (Calypso Slices)

Projects with other Manitoba clients:

- saskatoon topping, saskatoon beverage, saskatoon syrup (Prairie Lane Saskatoons, Petersfield)
- hemp oil (Domain)
- dried herbal wild blueberry tea, two blueberry beverages, fruit leather (Miinan, Headingley)
- Belgium waffle cookies (Ste. Agathe)
- traditional Scottish shortbread
- potato starch literature review with IRAP (Manitoba Starch Products)
- testing honey as alternative sweetener to sugar in baking applications (BeeMaid Honey)
- psyllium seed husk beverage
- literature review for value-added by-products from wheat flour milling (Prairie Flour Mills Ltd.)

Projects with clients from elsewhere in Canada:

- standardizing original and honey hot BBQ sauce formulation, researching commercial ingredients, reformulating for large scale production, developing production procedure, determining shelf life, learning Canadian labelling requirements (Cattle Boyz Foods Ltd., Alberta)

Projects with clients from the United States:

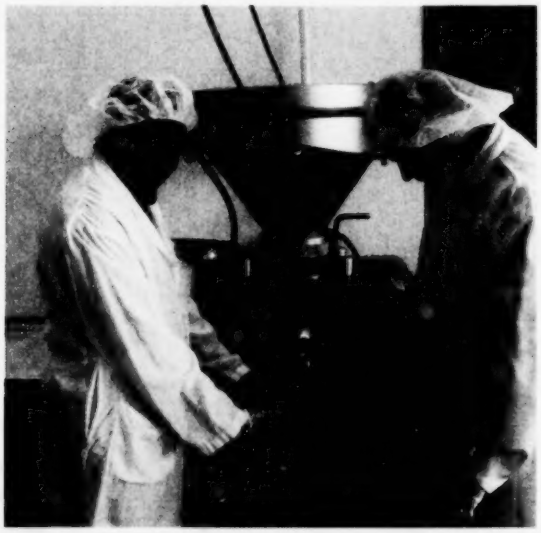
- gelatin (Oregon)
- developing a preservative system, pasteurization of liquid gelatin (Leiner Davis Gelatin, Iowa)

Roslyn Pilgrim's company Calypso Slices (Winnipeg) developed a Caribbean rum cake product through FDC. The formulation was developed from a family recipe. Process work has been completed and scaled up. Product packaging is the next step. Shelf life tests and nutritional labelling for the product will be done also. The client has been selling the rum cake product at hospitals and shopping malls, as well as the Manitoba Agri-Food Store in Winnipeg.

"The Food Development Centre has been helpful in commercializing my formula. The organization sources ingredients, assists in the correct packaging and makes sure each cake is consistent, to name a few of their functions. Leslie Hudson, the product specialist, has worked very hard to make these things happen. The work by the FDC

was made possible with a grant from MAVI.

"The product, Caribbean Rum Cake, is at the stage for shelf-life testing for six months. The inner packaging to keep the cake moist has already been selected and the process will start soon.



FDC client Roslyn Pilgrim (left) with pilot plant technician René Duchesne, working on the Calypso Slices Caribbean rum cake.

"Steve Melnyk [of Creative Advantage] works closely with the FDC in launching new products, including my rum cakes. He has designed some attention-getting business cards and labels for me. The graphics show the Caribbean, where the cake originated. Alphonsus Utioh is very knowledgeable in giving me ideas for equipment, or stores to approach [to sell the product].

"Markus Schmülgen, the marketing specialist, is giving me some direction to find a market for the specialty product. The FDC not only develops the product, but helps in the marketing as well. For anyone interested in processing a food product, the FDC is the right place to have your product developed and get the product to the marketplace. The staff is very accommodating and helpful."

Roslyn Pilgrim
CALYPSO SLICES

Seabuckthorn Mission

From August 20 to September 14, 2002, Alphonsus Utioh participated in a NRC–IRAP sponsored mission to Russia and Germany. The purpose of the mission was to visit sites featuring cultivation, processing and marketing of seabuckthorn.

The mission is described in detail in *Seabuckthorn Technology Mission to Russia and Germany: a Final Report.*

Alphonsus Utioh admires seabuckthorn plants on a Russian orchard during the IRAP–NRC mission to Russia and Germany.

Benefits of the mission included:

- Identification of opportunities for application of the functional ingredients in different product formulations.
- Identification of and connection with a network of expertise in Russia and Germany.

- Strengthening of understanding of cultivation, processing, marketing and applications of seabuckthorn to help develop the industry in Manitoba.
- Identification of areas for collaboration between producers and processors in Manitoba, Russia and Germany.
- Establishment of a network with Manitoba Elk Growers Association and Panto-Project Association in Biysk (Russia) about pantogematogen which is a biologically active nutritional supplement prepared from the blood of elk velvet antler.

Education and Business Development

FDC had a presence at the following tradeshows:

- Rural Forum (Brandon) April 25–27, 2002
- Health and Wellness Expo (Winnipeg) May 3–5, 2002
- Centrex Hotel and Restaurant Association tradeshow (Winnipeg)
- Manitoba Ag Days, January 14–16, 2003
- Direct Farm Marketing Conference (Brandon) February 21–22, 2003
- The Forks Market Agriculture Exhibit (Winnipeg) March 7–9, 2003

Two issues of the FDC newsletter, *agora*, were published and distributed.

The new FDC tagline, *Your Future in Food*, was created and printed on FDC signage, advertising and business cards.
A public relations item was created and distributed to delegates at the April 2002 media event, bearing the phrase *You can't Beat our services*, with a small whisk attached to it (see Appendix IV).

The *Manitoba's Winning Combination* slogan was developed and will be used extensively to promote public knowledge of the joint approach to agri-food services in the province.

Two workshops were presented by FDC this year:

Science Teacher Workshop: CONNECT Agri-Food Tech.
Portage la Prairie and Winnipeg: July 9, 2002. Attended by 21 Manitoba high school science teachers.
FDC presented workshop in conjunction with the Science Teachers' Association of Manitoba, NRC, Western Diversification, Industry Canada, AAFC and MAF.
The workshop incorporated the science of agriculture and food into high school curricula in the province of Manitoba.

Agents, Beams & Coatings: Anti-Microbial Technologies for the Food Processing Industry
Winnipeg: November 25–26, 2002. 55 attendees.
FDC presented the seminar in conjunction with Manitoba Hydro, NRC–IRAP and MFPA.
The seminar featured anti-microbial technology for food processing industry and demonstrated how to reduce microbial contamination in food processing. It included a tour of Acsion Industries (Pinawa) to demonstrate use of E-Beam technology by that company.

The following presentations and tours were given by FDC:

- Presentation to Portage la Prairie Rotary Club (July 11, 2002)
- MAF tour (July 24, 2002)
- Presentation to Prairie Fruit Growers Association (September 7, 2002)
- Joint presentation by FDC and GPAP to Northern Pricing Committee Presentation (September 12, 2002)
- MAPAM tour of FDC with particular focus on supercritical fluid extraction (September 14, 2002)
- Russian delegation, as hosted by non-timber forest products (September 19, 2002)
- Mexican delegation (September 30, 2002)
- Korean delegation (October 2002)
- Spring Hill School (Manitoba) tour (October 10, 2002)
- Portage Collegiate Institute tour (November 2002)
- Chinese delegation (November 6, 2002)
- Ukrainian delegation (November 25, 2002)
- Iranian delegation (December 2002)
- Presentation by Alphonsus Utioh at Canadian Grain Commission, Canadian International Grains Institute and Grain Research Laboratory seminar, displaying FDC capabilities and expansion project; potential for collaboration discussed with the Barley Research Lab on development of gluten-free beer for Manitoba company
- Chinese delegation (January 16, 2003)

BDC HACCP Project

In the spring of 2002, FDC was the successful contractor for Request for Proposal from BDC Canada. The contract was for a report on the state of regulations and industry practices with respect to the hazard analysis critical control points (HACCP) food safety system.

The final report was completed in November 2002 and submitted to BDC Canada. The report entitled *Regulatory Environment and Requirements for HACCP in Canada* and was well-received by senior executives of BDC Canada across the country. The report exhaustively documented jurisdictional practices, as well as industry trends and attitudes towards food safety at all levels of the food chain.

Strategic Linkages

The Energy Diversification Research Laboratory (Montreal) and Manitoba Hydro worked with FDC to research drying technology for food grade starch. The jet-spouted bed technology was researched and developed. Applications for protein and fibre are also being investigated. Representatives from Parrheim (Portage la Prairie) toured and evaluated the lab prototype at FDC. Through wear and tear, teflon particles could be present in the finished product; researchers from the University of Manitoba collaborated with FDC to determine the minimum allowable limit of teflon flakes in the dried starch.

Manitoba Agri-Food Store

A committee was formed with FDC, MAF, the Manitoba Food Processors Association (MFPA) and Creative Advantage Inc. for a Manitoba Agri-Food Store to be located at The Forks Market in Winnipeg. Five million people visit The Forks in Winnipeg each

year, making it a popular grocery shopping and tourist area which makes it an ideal location for product visibility.

Creative Advantage Inc. owns and operates the Store, which provides to-the-shelf marketing opportunities for showcasing Manitoba-made food products and beverages.

With the assistance of FDC, the Manitoba Agri-Food Store conducts consumer taste-tests, consumer surveys, product studies and food preparation demonstrations using Manitoba products. The outlet is an information centre as well; video loops are presented and printed resources for creating and marketing an agri-food product are available.

The Manitoba Agri-Food Store at The Forks in Winnipeg. From left to right: Dave Donaghy (CEO, FDC), Alana Henuset (FDC), Susan Melnyk (Creative Advantage Inc.), Pat Scott (GM, FDC), Shelley Lagassé (FDC).

The Store has had a great deal of consumer interest. Various federal, provincial and city government agencies, agri-food and beverage associations, and ingredients suppliers have the opportunity to sponsor events at the outlet. Their involvement promotes their role in and support for the Manitoba agri-food industry and the Store.

Only commercially produced and packaged Manitoba-made products in compliance with all relevant legislation can be sold at the Store. The cost is general grocery store percentages and co-operative advertising supplements where no client relationship exists with any Store committee member. Manitoba products are also packaged in gift baskets and sold at the location.

THE WINNING COMBINATION

Gestalt – the Whole

FDC is highly aware, especially since joining MAF, that the agency is one step in the food production, processing, marketing and distribution industry continuum.

FDC has close working relationships with other key organizations in the agri-food industry. Partnerships between various organizations in the industry have been essential in avoiding duplication of valuable and limited resources, as well as in identifying and filling holes in the map of services.

FDC has been working with MAF to identify areas of responsibility and those lacking in development, in order to perfect the seamless delivery of services approach. The two bodies recognize the Gestalt concept in joining forces — that the whole is greater than the sum of the parts.

FDC designed this schematic diagram of the different parts of the food production continuum. MAF, NCARM, RCFFN and FDC are a few of the organizations that offer services to the industry.

The Parts

FDC and its colleague organizations in the Manitoba agri-food industry have identified what the Centre calls *Manitoba's Winning Combination*. At the heart of the *Winning Combination* is the mission of presenting a seamless continuum of services to business people involved at any point of the food production, processing, marketing and distribution chain.

The *Winning Combination* is arrived at by including key organizations in the chain that, like FDC, are intent on seeing Manitoba grow as a global source of high quality food products.

Manitoba Agriculture and Food, as the parent organization of FDC, is a key part of the *Winning Combination*. MAF is unique in its commitment to providing services to the primary producers of Manitoba. The department also serves food processors, consumers and other government departments, but no other provincial organization has a commitment to fulfill the needs of the producers.

FDC, as part and partner of MAF, shares the commitment of the department as a greater whole to providing services for food processors in the province of Manitoba. FDC is an integral part of *Manitoba's Winning Combination* of economic development and applied research and development in the agri-food industry.

NCARM at the St. Boniface General Hospital Research Centre in Winnipeg is another part in the *Winning Combination*. NCARM

supplies basic research and clinical trials in applied health and medicine. Its focus is plant-based natural health products and its role is primarily as an intermediate step for pharmaceutical and venture capital firms interested in further commercial development of medicinal plant products.

The brand new RCFFN is a pure research facility in the grains and oilseeds field. The position it occupies in the agri-food industry is to provide education and basic research to students, industry associations and companies interested in knowledge of active components of grains and oilseeds.

Seamless and Comprehensive Service

FDC and representatives from the other *Winning Combination* organizations regularly co-operate on a variety of initiatives, such as co-sponsoring industry and training events, and collaborating on research projects. Fulfilling the essence of co-operation, the *Winning Combination* bodies provide extension services and technology transfer to the agri-food industry. Committed to seamless and comprehensive delivery of services to clients, FDC has developed excellent channels of communication with the other *Winning Combination* organizations. FDC has a thorough understanding and appreciation of the operations at its colleague organizations, and the array of services each administers. When clients require services that fall outside the scope of the operations of the Centre, FDC easily capitalizes on this ready communication network to uphold its responsibility in the *Winning Combination*.

When the *Winning Combination* has been successfully implemented, the winners are the individual business owner, the agri-food industry, the province and ultimately Manitobans.

THE HUMAN FACTOR

Staff Professional Development

Central to the fulfillment of the mission and accomplishment of FDC's goals are the highly motivated, educated, skilled and experienced employees.

A great deal of the responsibilities and activities of FDC staff involves teamwork. The Centre appreciates the importance of individual recognition and training in order to create and maintain a strong team. FDC believes that a sense of professional fulfillment and employee satisfaction in individual staff members is fostered by the encouragement of regular attendance at training opportunities.

The knowledge individual employees gain at industry and training events is valuable in the direct application of new or refreshed skills to the goals of the Centre. It also has a value-added benefit in strengthening the overall complement of skills and expertise of the FDC team and establishing new contacts throughout the industry. During the 2002/2003 year, FDC was pleased to support staff attendance at the following events:

Growing Manitoba
Annual General Meeting
Winnipeg, Manitoba: April 2, 2002
Linda Petriuk learned about the organization and initiated contact with other organizations in the agri-food industry in Manitoba.

Several staff members attended the FDC-sponsored Agents, Beams & Coatings workshop in November 2002.

Canadian Federation of Independent Grocers (CFIG)
Grocery Showcase West 2002: 13th Annual Spring Conference and Trade Show
Vancouver, BC: April 21–22, 2002
Alana Henuset attended the grocery exposition, which showcased new retail foods competing for shelf space with new flavour ideas and packaging options from all over the world. It highlighted health foods, Tetra Pak packaging for every conceivable liquid product and organic food products. Seminars Alana attended were "The New Consumer and Food Safety," "Managing the Customer Experience" and "Discover your Niche and Reap the Rewards."

Banff Academy for Business
Closing Techniques
Winnipeg, Manitoba: May 30, 2002
Markus Schmülgen attended this interactive one-day workshop presenting proven techniques for increasing closing terms for sales agreements.

Institute of Food Technologists (IFT)
IFT 2002 Annual Meeting
Anaheim, California: June 15–19, 2002
Alok Anand was informed of research and development of new technology in food processing and engineering, important in a year when FDC is renovating and purchasing much new equipment under the capital ac-

quisitions portion of the five-year Strategic Plan.

Manitoba Food Processors Association (MFPA), Food and Consumer Products Manufacturers Council of Canada (FCPMC)
Supply Chain Food Product Recall Workshop
Winnipeg, Manitoba: June 27, 2002
Leslie Hudson attended this workshop on emergency measures in food safety and quality control and the costs involved. The risk management information is valuable for FDC clients who manufacture food and beverage products for commercial purposes, including export.

Canadian Food Inspection System Implementation Group (CFISIG)
HACCP System and HACCP-Based Program Recognition Protocol Information Session
Winnipeg, Manitoba: August 6, 2002
Linda Petriuk obtained information about a voluntary national food safety protocol with HACCP as its basis. The information session was directly applicable in researching and compiling the report on the state of HACCP in Canada for BDC Canada.

National Research Council of Canada – Industrial Research Assistance Program (NRC–IRAP)
Seabuckthorn Technology Mission
Russia / Germany: August 31–September 19, 2002
Alphonsus Utioh participated in the mission co-ordinated by NRC–IRAP and the Canadian embassies and Russia and Germany that included visits to a variety of companies involved in cultivation, processing and marketing of seabuckthorn. The Canadian delegation consisted of nineteen growers, government representatives and Industrial Technology Advisors of the NRC. It provided FDC with an opportunity to gain a network of contacts in the seabuckthorn industry in other parts of Canada, Russia and Germany. The knowledge gained on the mission will allow FDC to help build and strengthen the seabuckthorn industry in Manitoba, and to build export relationships with companies in Russia and Germany.

Texture Technologies
Texture Technologies Analyzer Workshop
Montréal, Québec: October 11, 2002
Shelley Lagassé attended this session about equipment that featured the quantification of physical properties of tested food products. The AACC pre-conference session provided valuable information about the applications of the technology, which subsequently has been purchased by FDC.

Crea Science
Efficient Design and Analysis of Shelf Life Studies
Montréal, Québec: October 12, 2002
Shelley Lagassé attended this AACC pre-conference session about methodology and determination of storage stability for various food products.

American Association of Cereal Chemists (AACC)
AACC 87th Annual Meeting
Montréal, Québec: October 13–17, 2002.
Shelley Lagassé acquired information on current issues, trends and technology in cereal and grain chemistry. Tours of local commercial bakeries provided valuable case examples of cereals and grains applications in industry.

Manitoba Rural Adaptation Council, Inc. (MRAC)
Building Strong Links: Manitoba's Food Safety Value Chain – Tracking and Traceability
Winnipeg, Manitoba: November 15, 2002
Leslie Hudson attended this conference about food safety at all levels of food production in Canada, including primary production of livestock and grain, food processing, transport and retail distribution. Rigorous record-keeping is essential in tracing back the passage of products through the food chain in the event of a breach of food safety at established critical control points.

Food and Consumer Products Manufacturers Council of Canada (FCPMC)
Nutritional Labelling Facts of Life: Preparing for Health Canada Nutritional Labelling Legislation
Winnipeg, Manitoba: November 22, 2002
Alana Henuset attended this workshop at which the speaker, Carolyn O'Brian, Director of Scientific and Regulatory Affairs for FCPMC, provided an update on Health Canada's proposed mandatory nutritional labelling and a comparison of the old and new legislation and label format. A review of the five allowable health claims was presented. As well, a panel of industry representatives who have worked to create labels and product identification materials discussed redesign of the label to satisfy the new nutritional label regulations.

FDC, MFPA, Manitoba Hydro, NRC–IRAP
Agents, Beams & Coatings: Anti-Microbial Technologies for the Food Processing Industry
Winnipeg, Manitoba: November 25–26, 2002
Alok Anand, Leslie Hudson, Shelley Lagassé and Alphonsus Utioh attended this local industry event, developing contacts with equipment suppliers and potential new clients. The FDC-sponsored event provided information about microbial control in food processing using different means of preservation. Ozone, natural anti-microbial agents and food irradiation were some of the technologies discussed.

Manitoba Government Libraries Council (MGLC)
Legislative Library Tour
Winnipeg, Manitoba: December 2002
Linda Petriuk, FDC's librarian and a member library of the MGLC, attended this tour which provided a comprehensive orientation session for the facility, holdings and services of the Legislative Library in Manitoba. A vast amount of legislative, government and provincially produced information is accessible in the collection.

Society of Management Accountants of Canada (CMA Canada)
Environmental Costing
CMA Canada website: January 2003
www.cma-canada.org/cmacan/
Pat Scott completed this course that focussed on sustainable development and reducing costs related to inadequate design of land and water resources by pre-emptively changing the nature or design of a product or service.

CMA Canada
Target Costing
CMA Canada website: January 2003
www.cma-canada.org/cmacan/
Pat Scott completed this course that focussed on how costs can be analyzed and controlled at the planning stage in order to develop a

cost structure that yields a target level of profit. Almost all costs related to providing a product or service are committed at the planning stage rather than the production stage. The information was timely and valuable during the third year of the five-year Strategic Plan in which all capital cost recommendations for FDC were implemented.

Department of Foods and Nutrition – University of Manitoba (UM)
Sensory Evaluation Workshop
Winnipeg and Portage la Prairie, Manitoba: January 17–18, 2003
Leslie Hudson and Shelley Lagassé attended this workshop on effective methods in sensory testing of food products for consumer acceptability. The course, designed specifically for FDC staff, was presented both at UM and at FDC.

Manitoba Agriculture and Food (MAF)
The People We Serve: Our Foremost Priority
Winnipeg, Manitoba: January 21, 2003
A large number of FDC staff attended this event, a component of the MAF Orientation Program that provided a forum of learning, dialogue and exchange of ideas with respect to providing high quality client service.

AACC, Canadian Prairie Section
Effects of Flax Seed on Cardiovascular Systems
Winnipeg, Manitoba: January 22, 2003
Alana Henuset and Shelley Lagassé attended this evening presentation by the local section of the AACC. The speaker was the director of NCARM, a division of the St. Boniface General Hospital Research Centre (Winnipeg). FDC regularly receives requests for information about chemistry and health effects of flaxseed, and client projects have involved flax. Shelley Lagassé, as Chair of the Canadian Prairie Section in 2002/2003, organized the event.

Canadian Institute of Food Science and Technology (CIFST), Manitoba Section
Tour of the Freshwater Fish Marketing Corporation
Winnipeg, Manitoba: February 12, 2003
Leslie Hudson represented FDC at an informative tour of the facility. This important networking opportunity allowed Leslie to make contact with current and new food industry representatives.

MFPA
Getting it on the Shelf: Niche Retail Market Opportunity Seminar
Winnipeg, Manitoba: February 20, 2003
Leslie Hudson and Shelley Lagassé attended this seminar on finding and gaining access to consumer markets for new and unique food products. Many FDC clients are entrepreneurs with one or a few products, and finding a successful niche in which to promote their products is important to the success of the enterprise in a competitive marketplace.

Food Directorate – Health Canada
Manitoba and Saskatchewan Canadian Nutrient File Consultations
Winnipeg, Manitoba: March 4, 2003
Alana Henuset attended a consultation workshop on the Canadian Nutrient File (CNF) regarding the needs assessment leading to the expansion of the CNF and the creation of a consortium with stakeholders willing to contribute technical expertise, data and funding.

Food Directorate – Health Canada
Information Session on Regulating Food Biotechnology in Canada
Winnipeg, Manitoba: March 5, 2003

Linda Petriuk attended the information session for the Manitoba and Saskatchewan region. The session was intended to update Canadian food safety partners on current information about the regulation of novel foods in Canada. Questions about the new novel foods regulations in the *Canadian Food and Drugs Act and Regulations* are frequently addressed to the FDC library.

Staff Professional and Industry Associations

FDC staff members are well-known on their own account in the agri-food field through their considerable leadership and association with professional and industry groups. In the 2002/2003 year, FDC was proud to be represented by staff through membership in the following highly respected organizations.

American Association of Cereal Chemists (AACC)
Alana Henuset
Shelley Lagassé
– Chair, Canadian Prairie Section

American Chemical Society (ACS)
Linda Petriuk

American Oil Chemists' Society (AOCS)
Alphonsus Utioh

American Society of Agricultural Engineers (ASAE)
Alok Anand

Association of Professional Engineers and Geoscientists of the Province of Manitoba
Alphonsus Utioh

Canadian Institute of Food Science and Technology (CIFST)
Alok Anand
Alana Henuset
Leslie Hudson
Shelley Lagassé
John Qi
Alphonsus Utioh
– Chair, Manitoba Section
– Board of Directors (National)

Canadian Organic Growers (COG)
Linda Petriuk

Canadian Society of Agricultural Engineers (CSAE)
Alok Anand

Financial Management Institute of Canada (FMI)
Pat Scott

Food Processors of Canada (FPC)
Alphonsus Utioh

Information Systems Audit and Control Association (ISACA)
Pat Scott

Institute of Food Technologists (IFT)
Alok Anand

Institute of Public Administration of Canada (IPAC)
Pat Scott

Manitoba Agri-Food Research and Development Group (see Appendix VI)
Alphonsus Utioh
– Co-Chair

Manitoba Chamber of Commerce
Markus Schmülgen

Manitoba Government Libraries Council
FDC Library, represented by Linda Petriuk

Manitoba Institute of Agrologists (MIA)
Markus Schmülgen

Manitoba Library Consortium Inc. (MCLI)
FDC Library, represented by Linda Petriuk

Portage la Prairie and District Chamber of Commerce
Markus Schmülgen

Society of Management Accountants of Canada (CMA Canada)
Pat Scott

FDC Expertise at Industry and Training Events

FDC staff participated in the organization of or presentations at the following industry and training events.

AACC, Canadian Prairie Section
Effects of Flax Seed on Cardiovascular Systems
Winnipeg, Manitoba: January 22, 2003
Shelley Lagassé is Chair of the AACC Canadian Prairie Section and organized this evening event. The speaker was Grant Pierce, Director of the National Centre for Agri-Food Research in Medicine.

CIFST, Manitoba Section
Career night
Winnipeg, Manitoba: February 25, 2003
Shelley Lagassé was one of the speakers at this event showcasing careers in the agriculture and food sector. The event was intended for an audience of high school and post-secondary students and accordingly took place at the University of Manitoba.

Medicinal and Aromatic Plants Association of Manitoba (MAPAM), Central Plains Inc. (CPI), Manitoba Country Vacations Association, Prairie Fruit Growers Association (PFGA), MAF
2003 Direct Farm Marketing Conference: Marketing... Think Direct
Brandon, Manitoba: February 21–22, 2003
John Qi and Linda Petriuk were pleased to speak to delegates at the Direct Farm Marketing Conference. Along with FDC client and entrepreneur John Ritz, they delivered a presentation about fruit processing technology and information. John Qi spoke about the technical aspects of fruit freezing, fruit wines and juices and packaging of value-added fruit products. Linda introduced delegates to the services of FDC, specifically the library services and holdings of interest to primary producers interested in adding value to their commodities. John Ritz spoke to delegates about his experience and success in progressing from a saskatoon producer to a processor of value-added saskatoon products for commercial distribution in domestic and export consumer markets.

Rotary Clubs of Winnipeg
Career Symposium 2003
Winnipeg, Manitoba: March 12, 2003
Shelley Lagassé and Leslie Hudson joined MFPA staff at a booth at the Career Symposium in Winnipeg. They encouraged students to ask questions about employment opportunities in the agri-food industry and spoke about their own occupations as examples of career paths in food science. FDC had an interactive sensory perception game for junior high and high school students to participate in.

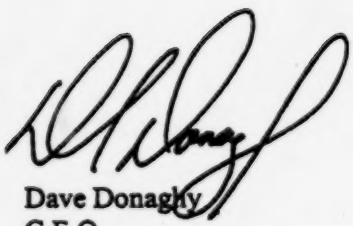
FINANCIAL STATEMENTS

Responsibility for Financial Reporting

The Agency is responsible for preparing the financial statements and other financial information in the Annual Report. This responsibility includes maintaining the integrity and objectivity of financial data and the presentation of the Agency's financial position and results of operations in accordance with generally accepted accounting principles. The financial statements include amounts that are based on management's best estimates and judgements. The Agency's financial statements have been audited by The Exchange Group, independent external auditors.

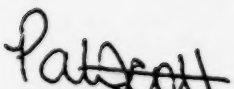
The Agency maintains a system of internal controls throughout its operation that provides reasonable assurance that transactions are authorized, properly recorded and reported, and those assets are safeguarded.

The Advisory Board meets regularly with management to review accounting practices, financial reporting, and to discuss audit results. The auditors have free and full access to this board, to discuss the results of their audit and their views on the adequacy of internal controls and the quality of financial reporting.



Dave Donaghy
C.E.O

June 18, 2003



Pat Scott
General Manager

June 18, 2003

FOOD DEVELOPMENT CENTRE

Financial Statements
(In Thousands)

Year Ended March 31, 2003

FOOD DEVELOPMENT CENTRE

Index to Financial Statements

Year Ended March 31, 2003

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E X G

THE EXCHANGE

chartered accountants

AUDITORS' REPORT

To the Special Operating Agencies Financing Authority

We have audited the balance sheet of Food Development Centre , an Agency of the Special Operating Agencies Financing Authority, Province of Manitoba as at March 31, 2003 and the statements of income and retained earnings and statement of cash flows for the year then ended. These financial statements are the responsibility of the Centre's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Centre as at March 31, 2003 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

THE EXCHANGE

chartered accountants

Winnipeg, Manitoba
June 18, 2003

FOOD DEVELOPMENT CENTRE

Balance Sheet

(In Thousands)

March 31, 2003

	2003	2002
ASSETS		
CURRENT		
Cash	$ 2	$ 2
Restricted cash for expansion *(Note 14)*	3,509	-
Accounts receivable *(Note 3)*	75	232
Prepaid expenses	81	35
	3,667	269
FIXED ASSETS *(Note 2, 4)*	831	229
FUNDS HELD ON DEPOSIT *(Note 5)*	28	27
SEVERANCE RECEIVABLE FROM PROVINCE *(Note 11, 12)*	41	41
	$ 4,567	$ 566
LIABILITIES		
CURRENT		
Working capital payable	$ 594	$ 257
Accounts payable and accrued liabilities	324	85
Accrued vacation pay *(Note 7)*	106	87
Unearned revenue	41	34
	1,065	463
SEVERANCE LIABILITY *(Note 11)*	50	58
DEFERRED CONTRIBUTIONS *(Note 2)*	3,351	-
	4,466	521
RETAINED EARNINGS	101	45
	$ 4,567	$ 566

FOOD DEVELOPMENT CENTRE

Statement of Income and Retained Earnings

Year Ended March 31, 2003

	2003	2002
REVENUE		
Contract - Province of Manitoba	$ 1,501	$ 1,322
Contract - National Research Council	55	50
Fee for service	141	187
Consulting and training services	32	68
Lease income	8	104
Interest and other income	21	109
Contract - Federal	16	-
	1,774	1,840
DIRECT OPERATING EXPENSES		
Lab supplies	41	45
Purchases services	32	39
Travel	64	80
Salaries	946	935
Postage, courier and telephone	39	44
Printing and stationery	16	18
Marketing	74	72
Library	36	54
Satellite office	2	5
	1,250	1,292
GROSS PROFIT	524	548
EXPENSES	438	426
INCOME FROM OPERATIONS	86	122
OTHER INCOME		
Loss on disposal of assets	(16)	-
Write down of other assets	(15)	(47)
Miscellaneous	1	-
	(30)	(47)
NET INCOME	56	75
RETAINED EARNINGS (DEFICIT) - BEGINNING OF YEAR	45	(30)
RETAINED EARNINGS - END OF YEAR	$ 101	$ 45

FOOD DEVELOPMENT CENTRE

Statement of Cash Flows

Year Ended March 31, 2003

	2003	2002
OPERATING ACTIVITIES		
Cash receipts from customers	$ 362	$ 448
Cash receipts from contracts	1,572	1,372
Cash paid to suppliers and employees	(1,409)	(1,655)
Interest received	6	6
Interest paid	(3)	(2)
Cash flow from operating activities	528	169
INVESTING ACTIVITIES		
Additions to capital assets	(710)	(26)
Proceeds on disposal of capital assets	3	-
Cash flow used by investing activities	(707)	(26)
FINANCING ACTIVITY		
Deferred contributions	3,351	-
Cash flow from financing activity	3,351	-
INCREASE IN CASH FLOW	3,172	143
Deficiency - beginning of year	(255)	(398)
CASH (DEFICIENCY) - END OF PERIOD	$ 2,917	$ (255)
CASH (DEFICIENCY) CONSISTS OF:		
Cash	$ 2	$ 2
Cash restricted for expansion	3,509	-
Working capital payable	(594)	(257)
	$ 2,917	$ (255)

FOOD DEVELOPMENT CENTRE

Notes to Financial Statements

(In Thousands)

Year Ended March 31, 2003

1. NATURE OF ORGANIZATION

Established in 1977, as part of the Manitoba Research Council, the Food Development Centre serves the agri-food industry by providing a wide range of services in the food, feed and beverage industries. Food Development Centre offers food product development research, testing services and assistance with technology transfer to enable industry to efficiently and economically produce high quality foods.

Effective April 1, 1996, the Food Development Centre was designated as a Special Operating Agency by regulation under The Special Operating Agencies Financing Authority Act made by the Lieutenant Governor in Council.

The Centre is financed through the Special Operating Agencies Financing Authority (SOAFA). The Financing Authority has the mandate to hold and acquire assets required for and resulting from Centre operations. It finances the Centre through repayable loans and working capital advances. The financial framework enables the Centre to operate in a business-like manner according to public policy expectations.

A Management Agreement with the Financing Authority assigns responsibility to the Centre to manage and account for the Centre-related assets and operations on behalf of the Financing Authority.

The Food Development Centre is a part of the Department of Agriculture and Food under the general direction of a General Manager and Chief Executive Officer, and ultimately the policy direction of the Deputy Minister and Minister.

The Food Development Centre remains bound by relevant legislation and regulations.

The Food Development Centre is economically dependent upon the Province of Manitoba, as it derives a significant portion of its revenue from the Province.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with Canadian generally accepted accounting principles. Because a precise determination of many assets and liabilities is dependent upon future events, the preparation of financial statements for a period necessarily involves the use of estimates which have been made using careful judgement. The financial statements have, in management's opinion, been properly prepared within the reasonable limits of materiality and within the framework of the significant accounting policies summarized below:

Basis of Reporting

The financial statements of the Centre are presented in accordance with Canadian generally accepted accounting principles.

Fixed Assets

Fixed assets assumed as part of the conversion to a Special Operating Agency, April 1, 1996 are stated at their estimated fair value as determined by the Province. Fixed assets are stated at cost less accumulated amortization. Fixed assets are amortized over their estimated useful lives at the following rates and methods:

Equipment and sign	20%	declining balance method
Computer hardware and software	20%	straight-line method
Signage	20%	declining balance method

(continues)

FOOD DEVELOPMENT CENTRE

Notes to Financial Statements

(In Thousands)

Year Ended March 31, 2003

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Other Assets

Research and development costs are expended as incurred.

Revenue Recognition

Fee for service revenue is recognized on percentage of completion basis.

All funds received and due from the Province of Manitoba at year end have been recognized as income in the current year except for the funds received for the construction of the new building. These amounts have been treated as deferred contributions and will be taken into income to match the amortization of the expansion.

3. ACCOUNTS RECEIVABLE

The accounts receivable balance is comprised of the following amounts:

	2003	2002
Trade accounts receivable	$ 145	$ 293
Allowance for doubtful accounts	(70)	(61)
	$ 75	$ 232

4. FIXED ASSETS

	Cost	Accumulated amortization	2003 Net book value	2002 Net book value
Equipment and sign	$ 804	$ 251	$ 553	$ 193
Computer hardware and software	183	125	58	36
Leasehold improvements	220	-	220	-
	$ 1,207	$ 376	$ 831	$ 229

Included in fixed assets is equipment with a net book value of $1 (2002- $1), which is being leased to clients of the Food Development Centre.

FOOD DEVELOPMENT CENTRE

Notes to Financial Statements

(In Thousands)

Year Ended March 31, 2003

5. FUNDS HELD ON DEPOSIT

Effective April 1, 2000, the assets and liabilities of the analytical services division were sold to Norwest Soil Research Ltd. The Centre has received a $25 deposit from Norwest Soil Research Ltd. as part of the sales agreement. Under the agreement, Norwest must maintain certain levels of revenue from work performed in the Province of Manitoba for the cumulative period of five years from the effective date of the agreement. If they fail to meet these conditions, the deposit and accrued interest are forfeited to the Food Development Centre.

For the year ended March 31, 2002 there is a shortfall of $17, at the present time there has not been any amount set up as a receivable or any reduction in the deposit. The surplus or shortfall for the year ended March 31, 2003 has not yet been determined.

6. WORKING CAPITAL PAYABLE

The Centre has an authorized line of working capital of $1,000 of which $594 was used as at March 31, 2003 (2002 - $257 was used).

7. ACCRUED VACATION PAY

The employees of the Food Development Centre are entitled to vacation pay in the current year, based on the prior year's employment. A provision for this liability has been recorded in the financial statements.

8. DEFICIENCY IN ASSETS

The Special Operating Agencies Financing Authority and the Manitoba Provincial Government entered into a Transfer Agreement respecting the transfer, from the Provincial Government to the Financing Authority, of the net assets required for the continuing operations of the Food Development Centre. As at April 1,1996, the date of transfer, the liabilities assumed exceeded the value of the assets in the amount of $35. This amount was recorded as the deficit at April 1, 1996.

9. PUBLIC SECTOR COMPENSATION DISCLOSURE

It is a requirement of the Public Sector Compensation Disclosure Act that annual public disclosure be made of individual compensation exceeding $50 annually to any officer or employee of the Province of Manitoba. the following employees received compensation in excess of $50:

	2003	2002
Utioh, Alphonsus - Manager Product and Process Development	$ 79	$ 92
Scott, Pat - Controller/General Manager	83	79
Schmulgen, Markus - Business Development Co ordinator	57	54
Offet, Gerald - Former General Manager (Interchange Agreement)	-	79

FOOD DEVELOPMENT CENTRE

Notes to Financial Statements

(In Thousands)

Year Ended March 31, 2003

10. COMMITMENT

The Food Development Centre is obligated to make payments to Workers Compensation for an employee currently on disability. The total financial impact impact on the Centre is not determinable since the length of time the payments will be required is unknown.

The Centre has not entered into a lease agreement with the Province of Manitoba for its premises.

11. SEVERANCE LIABILITY

Effective April 1, 1998, the Centre is recording accumulated severance pay benefits for its employees. Severance pay is determined by multiplying years of service, to a maximum of fifteen years, by the weekly salary at date of retirement, provided the employee reaches nine years of service and retires from the Centre. The estimate is based upon the method of calculation set by the Province of Manitoba.

The Province has accepted responsibility for the severance benefits accumulated by the Centre's employees to March 31, 1998. Accordingly, the opening severance pay liability balance as at April 1, 1998 of $83 was completely offset by a receivable from the Province. An adjustment was made in 2001 to reduce the receivable from the Province to $41. There are no terms of repayment for this receivable, and the amount will remain fixed at $41.

12. SEVERANCE RECEIVABLE FROM PROVINCE

The receivable from the Province of Manitoba is for severance pay benefits earned by the employees of Food Development Centre to March 31, 1998. The receivable, or portion thereof, will be collected in the event that there is a cash shortfall. However, this in only likely to happen on the dissolution of the Food Development Centre.

13. PENSION BENEFIT

In accordance with the provisions of The Civil Service Superannuation Act, employees of the Centre are required to contribute to the Civil Service Superannuation Fund at prescribed rates for defined benefits. The Centre matches the employees' contributions to the Fund. Under this Act, Food Development Centre has no further pension liability. The amount contributed and expensed by the Centre in the current year was $47 (2002 - $39).

14. RESTRICTED CASH FOR EXPANSION

In April of 2002 the Food Development Centre received approval for an $11 million expansion funded by the Federal and Provincial governments. The redeveloped facility will provide space for Great Plains Aseptic Processors, a Manitoba company that will use Tetra Pak technology to operate a commercial liquid food processing and packaging facility.

The existing facility will be renovated to qualify for the Canadian Food Inspection Agency registration, which will allow clients to develop, process and package products on site for sale to interprovincial and international markets.

The expansion will be completed during the March 31, 2005 year-end. As at March 31, 2003 $3,509 is being held as cash restricted for expansion to be used for the completion of this project.

FOOD DEVELOPMENT CENTRE

Notes to Financial Statements

(In Thousands)

Year Ended March 31, 2003

15. FINANCIAL INSTRUMENTS

The Centre's financial instruments consist of cash, accounts receivable, investment, accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that the Centre is not exposed to significant interest, currency or credit risks arising from these financial instruments. The fair value of these financial instruments approximate their carrying values, unless otherwise noted.

FOOD DEVELOPMENT CENTRE

Expenses

Year Ended March 31, 2003

	2003	2002
EXPENSES		
Accreditation and licensing fees	$ 3	$ 3
Amortization	89	76
Bad debts	9	22
Computer expenses	34	9
Equipment operating costs	18	27
Insurance	27	24
Interest	3	2
Memberships	6	6
Occupancy expenses	205	211
Professional fees	13	10
Repairs and maintenance	26	16
Staff relocation	-	5
Training	5	15
	$ 438	$ 426

APPENDIX I

FDC STAFF

ALOK ANAND
MSc
Process Development Consultant

JACQUELINE BENNET
Business Development Assistant

DAVE DONAGHY
AGROLOGIST, PHD
CEO

RENÉ DUCHESNE
Pilot Plant Technologist

GORD GHERASIM
Pilot Plant Maintenance Supervisor

MARCIA GUICK
Pilot Plant Technician

ALANA HENUSET
Product Development Consultant

LESLIE HUDSON
BSc
Product Development Consultant

DON INGRAM
Finance Officer

SHELLEY LAGASSÉ
BSc
Product Development Consultant

DIANE MILLER
Business Development Assistant

LINDA PETRIUK
BSc, BA, MLIS
Librarian

JOHN QI
BSc
Process Development Consultant

MARKUS SCHMÜLGEN
PAg, MSc, BComm
Manager, Business Development

PAT SCOTT
CMA
General Manager

KAREN TEMPLETON
Group Leader, Administration

ALPHONSUS UTIOH
MSc, PEng
Manager, Product and Process Development

APPENDIX II

ADVISORY BOARD MEMBERS

Don Zasada (chair)
Deputy Minister
Manitoba Agriculture and Food

Sid Gordon
Gordon Farms
Neepawa, Manitoba

Ken Einarson
[retired]
Winnipeg, Manitoba

Marjorie Jarvis
Jarvis Meats
Gladstone, Manitoba

Dave Donaghy
CEO
Food Development Centre

APPENDIX III

MEDIA COVERAGE

Canada • Manitoba

NEWS RELEASE Canada Manitoba

April 26, 2002

PORTAGE LA PRAIRIE FOOD DEVELOPMENT CENTRE
EXPANDING SIZE AND BUSINESS

An $11 million renovation and expansion project at the Food Development Centre in Portage la Prairie was announced today by Manitoba Agriculture and Food Minister Rosann Wowchuk and Reg Alcock, MP for Winnipeg South, on behalf of Lyle Vanclief, Minister of Agriculture and Agri-Food.

The Food Development Centre (FDC) provides a timely and cost-effective way for the agri-food industry and entrepreneurs to produce safe, high-quality food products. Working with Manitoba Agriculture and Food, the centre provides services in process and product development, training and seminars, library and information access, and rental of its commercial pilot plant facilities.

"As global competition increases and trade policies change, it is essential for us to support greater value-added processing of our high quality, diverse commodities," Wowchuk said. "Because of this investment, Manitoba will have a unique centre of excellence for applied research and development in processing and packaging all types of food produced in Manitoba."

Reg Alcock, MP for Winnipeg South, announced $2.9 million in federal funds to support the FDC. This money represents the federal interest portion of Manitoba's Gross Revenue Insurance Plan (GRIP) surplus.

"Today we are answering a call by the Province of Manitoba to leave the federal interest portion of GRIP funding where it can do the most good: within the province's agriculture and agri-food sector," said Alcock. "This money will benefit Manitoba's food processing sector by allowing the FDC in Portage la Prairie to enhance its facilities and replace outdated equipment."

Wowchuk said Manitoba's share of the funding is $7.9 million. The venture is expected to create 335 jobs in the private sector and through spinoff business over the next five years. The redeveloped facility will provide space for Great Plains Aseptic Processors, a new Manitoba company that will use Tetra Pak technology to operate a commercial liquid food processing and packaging facility for the province's food industry.

The existing Food Development Centre facility will be renovated to qualify for Canadian Food Inspection Agency registration, which will allow clients to develop, process and package products on-site for sale to interprovincial and international markets.

The City of Portage la Prairie and the Rural Municipality of Portage la Prairie will provide a grant in lieu of taxes, equivalent to an investment of $800,000 over eight years.
Wowchuk said approximately $1.3 million from the Agri-food Research and Development Initiative will also fund research and development projects using Great Plains Aseptic Processors equipment.

Manitoba's Food Development Centre was the first facility of its kind in Canada, and became part of Manitoba Agriculture and Food in December 1999. The centre is committed to the diversification and development of Manitoba's agri-food industry, working with new, small and large food processors to move products from the idea stage to the consumer market.

"This announcement is history-making, as the expansion and upgrade will make the Food Development Centre the only one in North America with the projected capabilities. This is the start of something really big, bringing our food lab to a new level," said Portage la Prairie Mayor Ian MacKenzie. "The announcement today is a result of work and co-operation between four governments, including the City and Rural Municipality of Portage la Prairie and the governments of Manitoba and Canada. It is a giant step forward for the agricultural processing industry in Portage la Prairie and for research, micro processing and food packaging."

"The municipality welcomes the expansion of the Food Development Centre. Your capabilities for assisting the development of marketable products will be greatly enhanced," said Portage la Prairie Reeve James Knight. "Partnering by all levels of government together with private enterprises is the way of the future. We are proud to be a part of this partnership."

Wowchuk noted that this initiative has the potential to become a focal point for economic development over the long term, with as many as 1,400 jobs being created over the next 15 years. These jobs will contribute an estimated $123 million to Manitoba's gross domestic product and $17 million to provincial taxes.

Assisting organizations such as the FDC in its efforts to help agriculture and agri-food businesses remain competitive and access markets is consistent with the Agricultural Policy Framework (APF), a federal-provincial-territorial action plan in partnership with industry to brand Canada as the world leader in food safety, innovation and environmentally responsible production. The APF, agreed to in principle in June 2001 by Canada's agriculture ministers, will take a comprehensive, industry-wide approach to securing the long-term prosperity and success of the agriculture and agri-food sector.

- 30 -

New development at food centre

Governments serve up $11 million to expand research facility

BY KYLA DUNCAN
The Daily Graphic

Portage la Prairie's Food Development Centre has received a major financial boost from the provincial and federal governments, allowing the facility to expand its research operations.

Rosann Wowchuk, the province's agriculture and food minister, was in the city early this afternoon to announce $11 million in grants for renovation and expansion of the Food Development Centre in the city's McMillan Industrial Park.

The province committed $7.9 million in this week's provincial budget, while the federal government will contribute $2.9 million to the project.

"These renovations will provide a cost-effective and timely way for producers and entrepreneurs to produce high-quality and safe food," said Wowchuk in an interview yesterday. "Food development is a very important part of what we are looking for in this province."

She said the expansion of the centre will make room for a new Manitoba company, Great Plains Aseptic Processors, which will be involved in Tetra pack food development. Tetra packs are more commonly used for juice boxes.

Portage Mayor Ian MacKenzie said the city is excited about the centre's expansion and the addition of another company to the facility.

"They are high tech jobs and (the expansion) is also another important step in providing a future for the young people in our community," MacKenzie said this morning.

Wowchuk said the renovations will bring the food research facility up to Canadian Food Inspection Agency standards, which will allow it to test and process dairy and meat products.

"We feel that food processing and value added to agriculture products are a way that people are looking and we feel in order to do these types of things, we have to bring the facility up to CFIA standards," she said.

Wowchuk said the expansion of the centre will not only lead to more jobs in Portage, but create a number of spin-off employment opportunities in the future.

She predicted the expansion will lead to the creation of 100 jobs over the next five years.

See CENTRE/P. 2

Centre to become major research facility

From Page 1

"We expect jobs will be created and there will be economic growth and value-added jobs in many part of the province," she said.

Wowchuk said the centre will become the major food processing facility in the country.

"I think it's a wonderful announcement for Portage la Prairie when you look at the potato processing and other jobs in the area," she said.

MacKenzie said he is looking forward to seeing the advancement of agricultural development at the centre.

"It's going to expand it both physically and of course in the work that it does," he said. "It's going to make the research capability more available to agriculture and the agriculture industry and as a result of that, I think we're going to see more improvement in the development and the handling of product."

the Daily Graphic
26 April 2002 front page

Portage centre slated for $11-M expansion

AN $11 - million expansion of the Food Development Centre in Portage la Prairie could create 1,400 jobs over the next 15 years, says Manitoba Agriculture and Food Minister Rosann Wowchuk.

The centre is a place where the agri-food industry can test products and packaging and conduct training. There is also a pilot commercial plant on site.

"As global competition increases and trade policies change, it is essential for us to support greater value-added processing of our high-quality, diverse commodities," said Wowchuk. The province is putting up $7.9 million. Another $2.9 million is coming from the federal government.

The City of Portage la Prairie and the Rural Municipality of Portage la Prairie will provide a grant in lieu of taxes, equivalent to an investment of $800,000.

"This is the start of something really big, bringing our food lab to a new level," said Portage la Prairie Mayor Ian MacKenzie.

It's estimated that the new jobs would contribute $123 million to Manitoba's gross domestic product and $17 million to provincial taxes.

Winnipeg Free Press Saturday 27 April 2002 p a5

Food centre gets expansion

(Staff) — A provincial centre in Portage la Prairie built to diversify Manitoba's agri-food industry will undergo an $11 million upgrade and expansion.

The Manitoba government is spending $7.9 million on the project affecting the Food Development Centre. The federal government's share of the funding is $2.9 million. Both the city and Rural Municipality of Portage la Prairie are providing grants in lieu of taxes.

The three levels of government announced the funding at a ceremony last week. The centre works with Manitoba food processors to develop and market new food products.

The project is expected to create 335 direct and indirect jobs over the next five years. The province said it hopes the centre will eventually create 1,400 jobs over the next 15 years, contributing $123 million to the province's gross domestic product and $17 million in provincial taxes. ❑

the Manitoba Co-operator 02 May 2002 p 8

Engineering work begins on food centre

By Daily Graphic Staff

Food. Development Centre officials cannot say when expansion of the local research and development facility will begin.

Markus Schmülgen, the FDC's business development manager, said while plans are just getting off the ground, construction could begin at any time.

"We're in the process of having the engineering drawings done, so (the expansion) has to go through the due process," he said. "It depends on what the engineer tells us, so there is no firm construction date in mind yet.

Last April, the provincial and federal governments announced they will contribute $11 million towards the renovation and expansion of the centre, located in the McMillan Industrial Park.

The city and rural municipality of Portage la Prairie will forgive $800,000 in taxes over eight years.

As part of the expansion, a new building will be erected adjacent to the FDC and will be home to Great Plains Aseptic Processors, a liquid food processing facility that will be one of a kind, said Schmülgen.

the Daily Graphic 31 July 2002

John McAllister
Agri-food Industry Catalyst

Historically, the prairies have consistently adopted colonial status in the Canadian economy by providing raw materials to central Canada and other parts of the world for processing and manufacturing. These processed or manufactured products would then be sent back to their origin to reap profits the producers could only dream of realizing.

But the times they are a changin'. And with the many adversities facing the farming community and its economy, the timing couldn't be better.

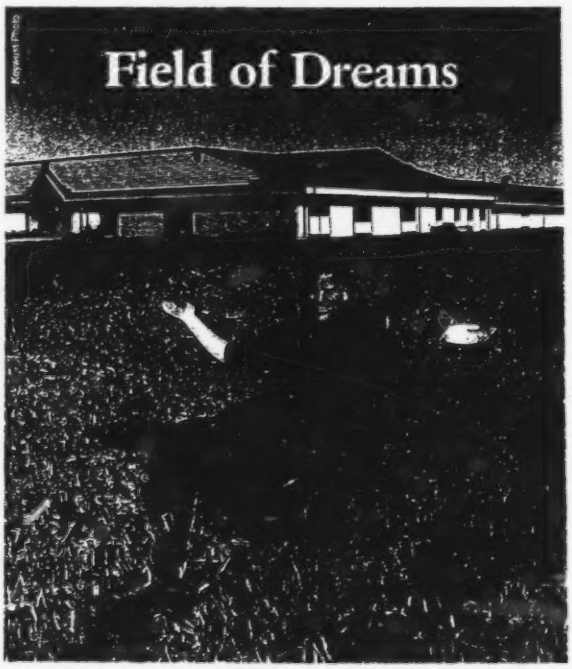
Enter John McAllister, president of Great Plains Aseptic Processors, who, along with the Food Development Centre (FDC) in Portage la Prairie, has become a catalyst for change in the agri-food industry, change that could provide a plethora of opportunities for the prairie farmer and investor alike.

For the past 11 years McAllister has been an employee of Tetra Pak, a global company with origins in Sweden that develops, manufactures and markets systems for processing, packaging and distributing food. It produces packaging material at 59 plants and has 77 market companies around the world. Every day more than 200 million Tetra Pak packages are distributed in more than 165 countries. In 2001, Tetra Pak's net sales amounted to $12.39 billion (Cdn.), and 20,150 persons were employed. Tetra Pak's focus is very much aligned with that of GPAP: They have the same customer base, the same prospect base, and both want to develop value-added food products.

In May of this year, McAllister decided to strike out on his own in a truly extraordinary entrepreneurial venture, a venture that could lead to huge economic benefits not only for the city of Portage but for the entire prairie region. McAllister has worn many hats as an employee with Tetra Pak, from training instructor to Director of Technical Service to Sales Director for the Prairie Provinces. It is through this latter role that he began pursuing his present position, by working with FDC and Manitoba Agriculture and Food.

As the Sales Director for the Prairie Provinces, McAllister was able to look at what products were available from the prairies. With commodities so plentiful, there came a strong desire to create value-added components to elevate food production rather than shipping the bulk commodities around the world.

McAllister identified areas where liquid foods could be derived from the existing or future agri-food base in the prairies and from that built a model from which to work. A large part of that model was the development of new food products in the Canadian marketplace, and that's where GPAP linked up with FDC in Portage la Prairie.



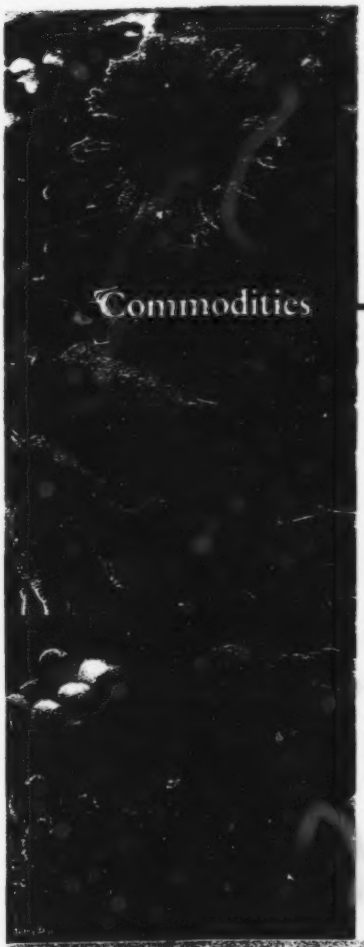
John McAllister sits near the future home of Great Plains Aseptic Processors, adjacent to the Food Development Centre in Portage.

"We developed a concept utilizing the competencies of FDC to develop food products," states McAllister. "We saw a very clear channel to continue that development into the shelf-stable category and then take that to the next step in commercialization with a production facility."

As Markus Schmülgen, Business Development Manager for the Food Development Centre in Portage la Prairie, suggests, "The Food Development Center is a research and development facility for the food industry with limited production capabilities. Until now, FDC has had limited capabilities with regards to liquid food processing and packaging. John adds to what the FDC already has and makes it a unique research and development processing facility in North America.

"The farmers in this region are the best in the world. Undoubtedly, John and Great Plains Aseptic Processors (GPAP) will reduce the raw materials from being shipped out of the province and change it to fully manufactured, value-added foods."

PRAIRION October 2002 pp 11-14



Initially, as Sales Director with Tetra Pak, McAllister created the business model that showed the viability of the liquid food market. Then he solicited the business community with the opportunity. However, time and time again the business community, although intrigued by the concept, was hesitant to commit due to lack of background in the area of aseptic food processing. It became evident to McAllister that in order to execute this model someone with the background and the experience in the aseptic food-processing environment was required.

"It became clear that the closest person in Manitoba to undertake this vital role was me. From here, I decided to take on the project completely. It was an evolution really: feedback from the business community, from potential investors looking for details...they were looking for someone who knew the way, who would manage this, train, understand the system, who had a network within the industry and within the packaging side back to Tetra Pak. The equation led to John McAllister."

That consultation process went back to Tetra Pak and all of the potential Manitoba stakeholders: the FDC and the Department of Agriculture and Foods. When the feedback was positive, McAllister and his newly formed company (GPAP) moved into a planning mode to determine the proper execution of the project.

"Currently, we are on two paths," notes McAllister. "One, we are approaching industry from a product development perspective, that is, potential prospects interested in developing a product right from the development stage to commercialization.

"We are at that stage because there is a timeframe required for development. We want to plan that and get a number of development projects underway so that when we are ready with the plant, we're ready to move into some product testing and commercialization."

Path number two entails the finalization from the investment standpoint into the venture.

What's in a name? Everything.

To understand the degree of value-added liquid food processing and packaging opportunities, one can simply refer to the company's name.

"Great Plains very much deals with the prairies," says McAllister. "Our home is Manitoba, but our market is really western Canada and potentially Canada. But our focus is going to be from the commodity base found within the prairies. Great Plains signifies that."

The second half of GPAP's name refers to aseptic processing. This is the segment of extended shelf life or long shelf life achieved through a technique in the processing of the food. GPAP will implement a Tetra Pak processing system which uses ultra-high temperature, also known as ultra-pasteurization—heating up the food product very quickly to approximately 140°C for three seconds and then cooling it down as quickly as possible to approximately 25-30°C in a matter of about 4-5 seconds. The exact time / temperature profile, however, depends upon the product being processed.

What this aseptic process doesn't do to the product is change its characteristics very much. There is always a change in a product, but, as McAllister points out, "This is probably the gentlest processing or treatment of a food product in terms of taste characteristics and the retention of vitamin attributes."

***Photo** - from left to right:*
Pat Scott, Gen. Mgr. FDC; Shelley Legassé, Prod. Dev. Consultant FDC; John McAllister, Pres. GPAP; and Markus Schmülgen, Bus. Dev. Mgr. FDC.

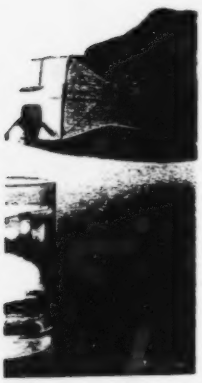
PRAIRION October 2002 pp 11-14

"This model suits Manitoba," says McAllister. "In the food market there is a regional market element; however, we want to look at the export market. This will allow a potential client 8 to 12 months to produce a product, put it in an aseptic package and distribute it globally if they so choose. It eliminates those barriers that are present today: time restrictions, quality, and degradation of the product."

Packaging

Tetra Pak's packaging process provides a series of advantages. First, there is the ability to eliminate headspace or air in the package. This saves the product because air has oxygen and oxygen oxidizes the components of the product. For example, if Vitamin C is allowed to oxidize, it will be lost.

The second element, which is just as important, revolves around the elimination of light and gas penetration through the packaging. With GPAP's packaging, the Tetra Pak foil layer acts as a light barrier and also as a gas barrier, so there is no light reacting with the product. Light is one of the biggest detriments to shelf life for most products in the market place today, damaging vitamin content.



The third element in this whole aseptic process involves the transfer of the liquid food to the filling machine and then filling it in an environment that is also safe.

"This transfer is a critical control point. The merge of the technologies, between the processing and the packaging, requires very high standards," McAllister insists. "This prevents contamination of the product after it has been processed through the filling operation."

Fruits, vegetables, meats, grains and oilseeds are the main staples from which GPAP will package. McAllister believes there is huge growth in the vegetable / fruit beverage combinations, and there is also huge growth in the vegetable, fruit and protein-based beverages. The protein source often used is soy, so there is a link into the grains and oilseeds. Whole ranges of beverages are possible.

"We haven't seen too many products like that in Canada," says McAllister, "but they have had tremendous growth in South America, and the product has migrated to Mexico where it has a very well-established market as well.

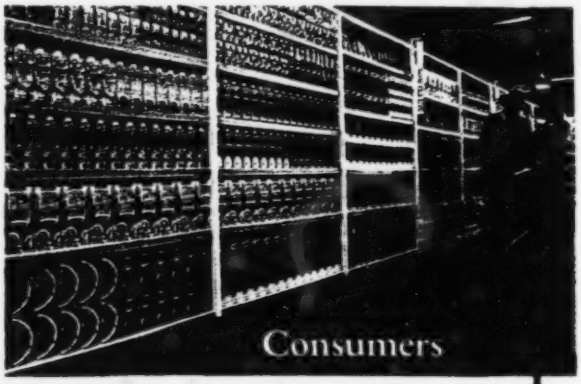
"Within the past year and a half, there have been products launched in the US, so the wave is coming; it's only a matter of time."

In a Nutshell

Through GPAP's model, we can see how a new product could make its way to the marketplace.

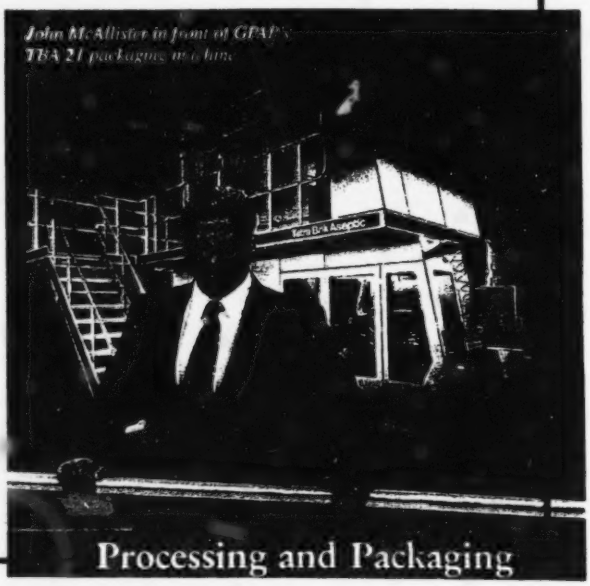
First, FDC can handle the basic research: the development of the food product, the pre-processing requirements from a pilot scale scenario, and the market trial out to the consumer. The consumer feedback acquired is vital in that whole development process.

The University of Manitoba (U of M) and the National Centre for Agri-food Research in Medicine (NCARM) would be involved if the study were to fall under the functional foods category. The U of M, which houses the Centre for Functional Foods and Nutriceuticals (CFFN), and St. Boniface Hospital Research Foundation, which houses NCARM, may perform research on the functionality or the extraction of the components that deliver that functionality. If the commodity were flax, for example, they would determine how best to extract Omega 3 from the flax and what would be the best strain of flax to derive Omega 3. Omega 3 is an essential fatty acid found in flaxseed oil and fish oils. These fatty acids are believed to help decrease the risk of heart disease.



The relationship between CFFN, NCARM and FDC is being built now. It is being done through a network where all stakeholders will communicate on a regular basis so that opportunities, both present and future, may be identified.

Those most interested in pursuing the opportunities made available through this network would include individual entrepreneurs, industry associations, co-ops, a group of growers, and/or a brand-owner in the health field who wants to develop a product that fits into or expands his or her existing market.

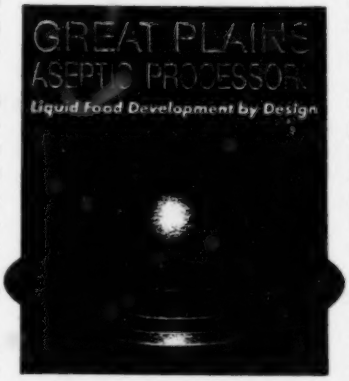


John McAllister in front of GPAP's TBA 21 packaging machine

PRAIRION October 2002 pp 11-14

What are McAllister and GPAP looking for?

"To have a successful model, right through the value chain—right from the producer or grower to end consumer—that model has to be such that it allows and justifies the pre-processing," emphasizes McAllister. In other words, the end product price must include a degree of pre-processing profitability to justify investing into the pre-processing facility.



According to McAllister, "Who owns that pre-processor is determined by the stakeholders. Maybe the brand owner wants to make that investment or perhaps the growers. Or, it could be a cooperative effort. For example, the same pre-processor could meet the needs of the carrot producers as well as the hemp seed producers. How that may look is too early to say at the moment, but there could be any number of possibilities."

What McAllister, GPAP and FDC are doing is creating the catalyst that allows this entire event to happen. The location within Portage is acting as a regional catalyst to allow present and potential stakeholders to concentrate on value-added food processing activities within proximity of one another to make it very economical.

Part of GPAP's corporate image is that of a drop of water and the ripples leading out from that centre creating concentric circles.

"I would say the centre circle represents our core, prairie-based opportunities. But as we continue to grow and build on our current competencies, we will certainly be looking more at the North American perspective for product development and commercialization of liquid food products," notes McAllister.

Manitoba has all of the pillars required for the successful research and development, clinical trial and food product development of functional foods ("good-for-you foods"—as McAllister puts it—because they are adding a certain value to health). The U of M, CFFN, NCARM, St. Boniface Hospital Research Foundation, GPAP and FDC make Manitoba very attractive for the research and development of new food products from within North American.

"We would like to encourage potential growers, co-ops or investors to come forward and understand our model," says McAllister, "because it is through these dialogues that we are going to start that whole product development cycle. Right now we are looking to reach out to all potential stakeholders."

The Year Ahead

The launch for Great Plains Aseptic Processors is scheduled for October 2003. Over the next 12 months McAllister hopes to partner with brand owners in different segments and be in a position to start taking Manitoba-based vegetable liquid products to any global market, whether it's soups or beverages.

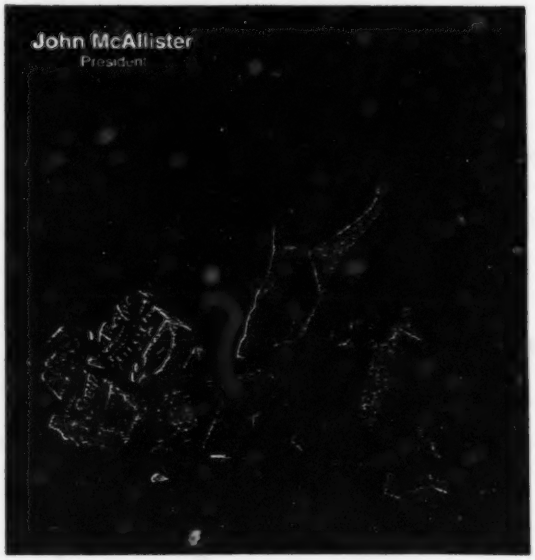
"I'd like to be in a position to start producing 'good-for-you' products that are derived and sourced from Manitoba flax, MB hemp, MB buckwheat, and so on, and essentially have products in that functional food category and the soup category. I'd like to produce products that could be taken to any global consumer market that is utilizing MB-based fruit, whether it's a saskatoon beverage or a saskatoon, strawberry, apple beverage.

"The last segment would be along the protein lines. We have all of the sources for vegetable proteins here on the prairies, and I'd like to have a product developed or allow the producer to take a product to any global market. It is our system that allows us to make that statement: Take a product to any global market. That's the wish list."

From a marketing perspective, GPAP has the reach of Tetra Pak to determine what the growing consumer markets are in Japan, Brazil or Taiwan. So even if it's not a growing category or product in Canada, it may be able to serve that market *from* Manitoba. Certainly Portage has established itself as a centre for food processing. There are a number of food companies that have planted themselves in the Portage area, and the City of Portage and the RM of Portage have made it known that they want to be a hub for the agri-food community. They are a willing and cooperative partner.

In the words of Dean Yaremchuk, Director of Economic and Community Development for the City of Portage la Prairie, "What's happening here is not by accident. City Council has worked very hard to build a positive environment for economic growth. We are on the verge of a real economic boom over the next 3 to 5 years. Things are just cookin' here right now."

Certainly the momentum within the agri-food industry is shifting; in fact, it is accelerating at speeds never felt before. The times *are* changing. The processing of raw materials into value-added products abound, marking a change our agrarian ancestors could only have dreamed of. And as these events unfold, especially around the city of Portage la Prairie, we must remember those catalysts that cause such change to occur, those with the entrepreneurial spirit of a John McAllister, President of Great Plains Aseptic Processors. ■



PRAIRION October 2002 pp 11-14

no limits

FDC spells diversity

An innovative model for managing, manufacturing and marketing diversity in today's agri-food industry. BY GLEN McCOLL

The Food Development Centre (FDC) is a Special Operating Agency of Manitoba Agriculture and Food located in Portage la Prairie. As its name suggests, the centre's reason for being is to aid in the development of food.

"More specifically," says FDC's General Manager Pat Scott, "the FDC's mandate is to help stimulate the agri-food economy by assisting small entrepreneurs who have fresh, new ideas.

"One of the best ways to create new jobs is at that level. It's nice to bring large companies with many new jobs to Manitoba," she says, "but that doesn't happen too often. The chance of having a start-up business lure one or two people, however, does happen much more frequently. So, the FDC is there to assist people who really want to get into the food processing industry and develop products."

Pipestone's Patti Marcq is certainly one of these people. She began her Christmas fruitcake venture back in 1991.

"I was making 30-40 fruitcakes per day at home," she states, "working 12 hour days, but this, along with farming and raising two girls, was just nuts. It was too much."

Marcq had heard about the FDC and eventually inquired about their assistance program for food developing entrepreneurs. After an interview with a member from the National Research Council and adhering to the necessity to incorporate her business, Patti Cakes Inc. was launched in 1996 and immediately qualified for a grant that covered 50% of research and development costs.

"That was a big bonus for me," adds Marcq. "The FDC looked after packaging, labeling, shelf life and the scale-up of the recipe. They pretty much do everything for you there."

Patti Cakes Inc. has doubled production, from 3500 pounds of cake in 1991 to well over 7000 pounds in 2002, due in large part to FDC's involvement and certainly Marcq's own business savvy.

"The people at the Food Development Center are the most wonderful people to work with," she remarks. "They are always trying to accommodate my requests."

At the time Patti started with the FDC, they didn't have the resources to assist their clients with marketing. Now clients are directed to Manitoba Agriculture and Food. It has a very strong marketing department for agri-foods, and they can assist their clients in putting the product on the grocery shelf. This allows FDC to cater to the entire process and increase the success rate of each client.

"We do work with the big companies as well," states Pat Scott. "I don't think there is a large food processor working in Manitoba that we haven't worked with at one time or another."

The Patti Marcq story is certainly one to be admired: entrepreneurial farmwife striking out on her own, diversifying through the help of the FDC to provide added income for herself and her family. The same admiration can be directed towards fellow entrepreneur, John McAllister, president of Great Plains Aseptic Processors (GPAP). On a much larger scale, McAllister has joined forces with the FDC to encourage farmers, brand name food industry owners and investors to think diversification when it comes to products grown right here in Western Manitoba.

"FDC is assisting John in the sense that we have established a partnership," says Scott. "He will be leasing space from us to house his processing and packaging equipment. We've created a process whereby a carrot producer, for example, can work with the FDC and develop and produce a product and then move on to John McAllister's facility to have that product packaged.

"This process extends the value chain in the food development industry, keeping returns for the manufactured product in our communities rather than shipping raw resources offshore, and having other countries process it and get the higher returns."

McAllister will partner with brand owners in different segments of the food industry and eventually take Manitoba-based vegetable liquid products to any global market, whether it's soups or beverages.

"We developed a concept utilizing the competencies of the FDC to develop food products," states McAllister. "We saw a very clear channel to continue that development into the shelf-stable category and then take that to the next step in commercialization with a production facility."

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Bottom left: FDC General Manager Pat Scott. **Above:** Patti Marco of Patti Cakes inc. and a sampling of her wares.

The facility McAllister refers to will soon be under construction at the FDC, part of a combined $11 million provincial and federal grant to enhance food development in MB and western Canada.

As Markus Schmulgen, FDC's Business Development Manager points out, "Until John came along in May 2002, FDC has had limited liquid food processing and packaging capabilities. John adds to what the FDC already has and makes it a unique research and development processing facility in North America."

For McAllister, the technology harnessed in his Tetra Brik Aseptic equipment will increase the shelf life of his liquid food products up to 12 months. This, in addition to the global reach of Tetra Pak, will permit GPAP and its partners to market their packaged goods to all parts of the world.

An excellent example of this is the partnership recently created between the Southwest Fibre Coop (SWFC), GPAP and the FDC. They have agreed to develop a line of functional beverages utilizing ingredients found in flax and soy. By taking this step, the SWFC has demonstrated how Manitoba's value-added processing can be developed to further secure the many channels available in the world's marketplace and how its membership of entrepreneurial producers will capitalize on these global opportunities through this value-added diversification.

So whether it's hemp oil, carrot juice, fruitcakes or flax, the Food Development Centre is ready to assist those interested in developing new food ideas.

The Food Development Centre... an innovative model for managing, manufacturing and marketing diversity in today's agri-food industry. FDC

John McAllister, President, Great Plains Aseptic Processors

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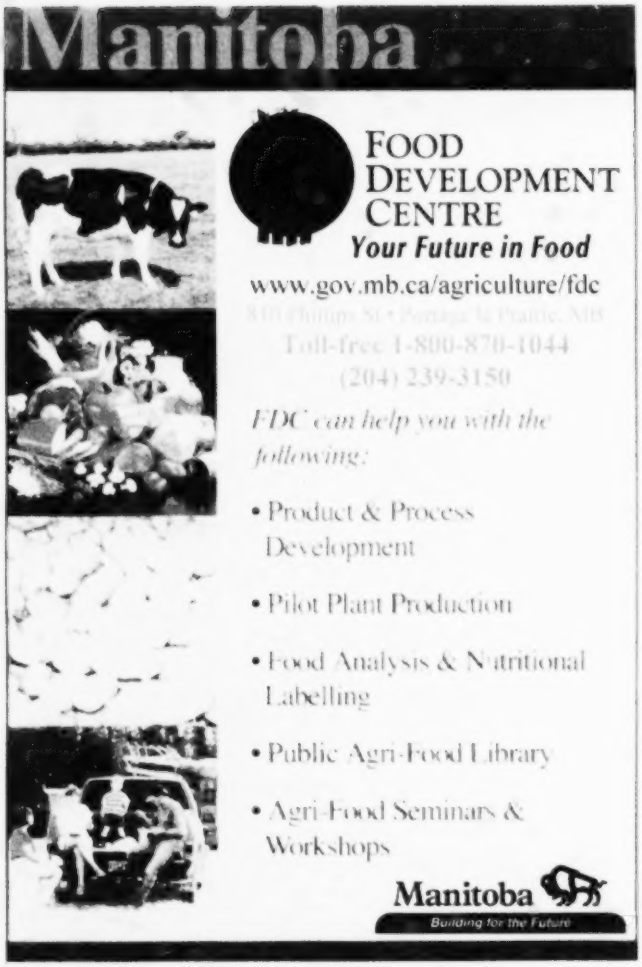
APPENDIX IV

BUSINESS DEVELOPMENT

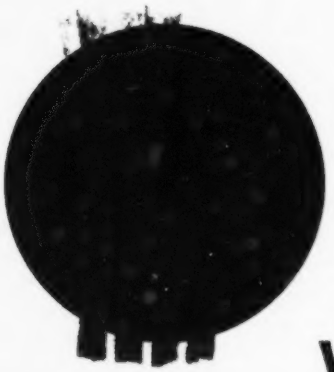


ADVERTISEMENTS

This advertisement (left) promotes the services available at FDC and has been appearing in Manitoba publications. Throughout the last year it has been printed in magazines such as the October 2002 issue of *Prairion* and the February / March 2003 issue of *In the City*.

BRANDING

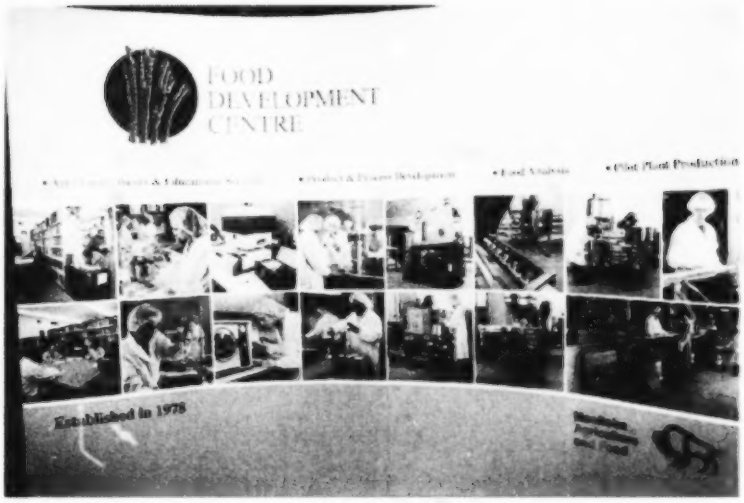
Since its creation in April 1996 the FDC logo (below) has appeared thousands of times on promotional clothing, official publications, billboards, advertisements, letterhead of the Centre, conference proceedings and promotional items for events sponsored by FDC. This year FDC developed a new tagline to summarize its purpose: *Your Future in Food*. The new slogan is an intuitive link between FDC and Manitoba Agriculture and Food (the tagline for MAF is *Your Future in Farming*). The slogan always appears with the well-recognized FDC logo to become a publicly familiar Manitoba brand.



FOOD
DEVELOPMENT
CENTRE
Your Future in Food

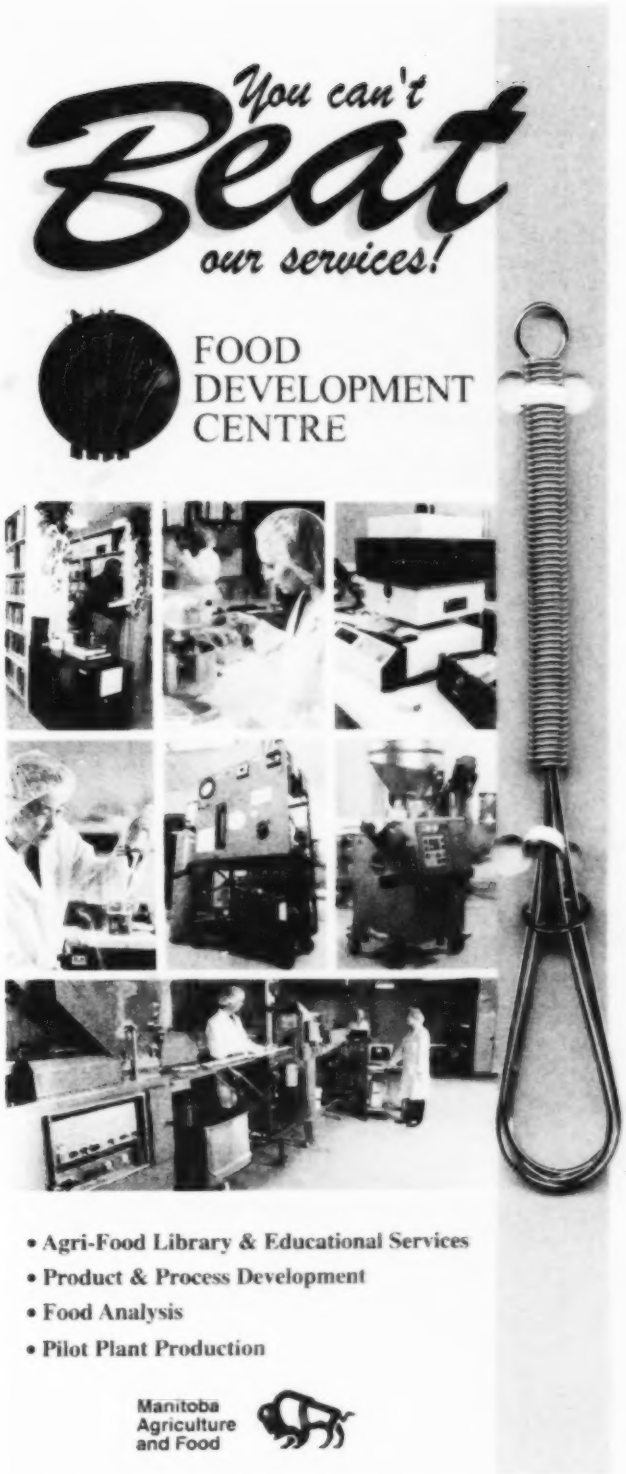
Industry Presence

Tradeshows and conference exhibits are prime opportunities for industry exposure that FDC has taken advantage of with a new display (right). This official FDC booth presence at industry events is elegant, informative, eye-catching and professional in appearance. It attracts many visitors who show keen interest in FDC services.



Public Presence

FDC has a presence at the Manitoba Agri-Food Store at The Forks Market in Winnipeg. The Store, owned and operated by Creative Advantage Inc., receives assistance from FDC in conducting consumer taste tests, consumer surveys, and marketing Manitoba-made products. FDC clients have the opportunity to sell their products at the Store.

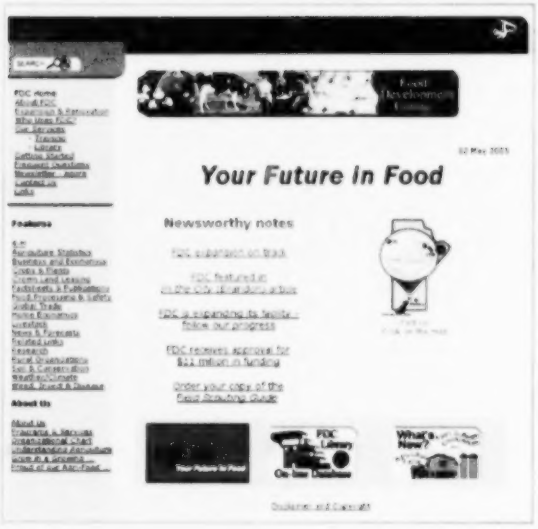


EYE-CATCHING PROMOTIONAL ITEMS

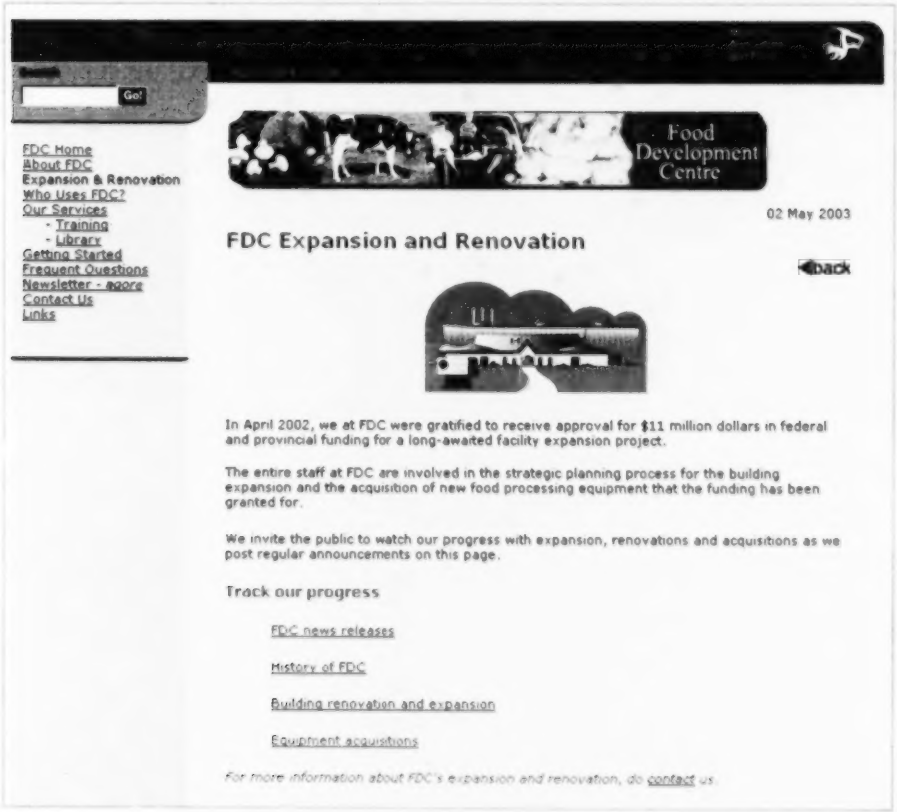
Everybody loves neat free stuff. Knowing this, FDC developed a catchy promotional gift to distribute to visitors. The promotional item bore the slogan *You can't Beat our services!* and a beverage-sized whisk attached to it (left). To the delight of visitors at the April 26, 2002 joint funding announcement, each FDC guest received one of the whisks. As well, the Centre assembles attractive gift baskets (below) of FDC client-produced items. Each basket is unique and they are sought after as donations to industry, community or charity events. The baskets are now available for purchase at the Manitoba Agri-Food Store at The Forks Market in Winnipeg. The baskets make splendid corporate gifts and tourist souvenirs, provide clients with an excellent means of visibility for their products, and are a business opportunity for the Store.

Virtual Presence

The Internet is a basic medium for communication and Manitobans increasingly expect access to business and government on the web. FDC is committed to meeting the high MAF web standard by providing a richer set of web pages for public access. By making frequent changes and additions to its pages, FDC strives to achieve repeat visits. The FDC website includes pages of information about the services available at FDC. The site also includes regularly updated pages of newsworthy information about news at the Centre, the *agora* newsletter, upcoming FDC training events and the FDC library. Most exciting is the set of pages documenting the progress of the FDC building renovations and equipment acquisitions (below).



www.gov.mb.ca/agriculture/fdc


Go!
FDC Home
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Expansion & Renovation
Who Uses FDC?
Our Services
- Training
- Library
Getting Started
Frequent Questions
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Food Development Centre
02 May 2003
FDC Expansion and Renovation
back
In April 2002, we at FDC were gratified to receive approval for $11 million dollars in federal and provincial funding for a long-awaited facility expansion project.
The entire staff at FDC are involved in the strategic planning process for the building expansion and the acquisition of new food processing equipment that the funding has been granted for.
We invite the public to watch our progress with expansion, renovations and acquisitions as we post regular announcements on this page.
Track our progress
FDC news releases
History of FDC
Building renovation and expansion
Equipment acquisitions
For more information about FDC's expansion and renovation, do contact us.

NEWSLETTER

The *agora* newsletter is published several times during the year. The newsletter is distributed to the FDC mailing list. Copies are available in the FDC foyer and at the FDC booth at trade-shows for visitors to take at their leisure. A supply of copies is sent to the Manitoba Food Processors Association and some Manitoba Agriculture and Food offices for visitors to take freely. The *agora* newsletter is available on the FDC website at www.gov.mb.ca/agriculture/fdc/newsletter.html.

volume 2 number 2
March 2003

agora

Your Future in Food

agora *n., pl.* **-rae** *or* **-ras.** *(often cap.)* **a.** the marketplace in Athens, used for popular meetings in ancient Greece **b.** the meeting itself [from Gk., from *agorein* to gather]

- $11 million was committed by the provincial, federal and municipal governments in April 2002
- CFIA has approved the design plans for a new facility to be built on to the current FDC structure
- FDC's partner GPAP will use Tetra Pak technology in the new facility
- New equipment for the facility has begun to arrive and more has been ordered

Expansion of FDC beginning on schedule

Since the announcement of $11 million in funding in April 2002, staff at the Food Development Centre have been heavily involved in planning with architects, engineers, equipment suppliers and Canadian Food Inspection Agency (CFIA) inspectors.

As a result of an effective strategic plan, FDC received a grant from the provincial, federal and municipal governments, or what amounts to preliminary approval of its operations and plans for economic development in the agri-food industry.

The funding was granted in April 2002, empowering FDC and its partner Great Plains Aseptic Processors (GPAP) to begin drafting designs for a new facility at the rear of the existing building in Portage la Prairie, Manitoba. Operations of GPAP will involve aseptic liquid food processing and packaging using Tetra Pak technology. John McAlister created GPAP in May 2002 and entered into partnership with FDC to use unique packaging equipment and technology that provides the pirates with an opportunity for further processing of raw materials.

The CFIA has recently approved the design plans for the new facility and further architectural drawings for the actual construction have been undertaken.

Meanwhile, new equipment for the facility has begun to arrive at the Centre. Among the acquisitions are a centrifuge, several scales, and blenders, a texture analyzer and a rapid moisture analyzer, an ice machine and a Therm-O-Seal bag sealer. More equipment has been ordered and is expected to arrive in spring 2003. As well, the FDC product development laboratory will have new seamless flooring installed in the existing area. The new facility and equipment at FDC will broaden opportunities for innovative food product development in the province. The facility is expected to receive CFIA accreditation for meat and processed products, allowing clients to embark on a wide range of projects in the plant.

The building in the foreground is the current FDC building in Portage la Prairie, Manitoba. The larger structure in the background is the design for the future FDC and GPAP facility.

See GPAP on page 3

FDC goes to market

The Food Development Centre will soon be visible to Winnipeg market goers. FDC will share a presence with Creative Advantage Inc. and the Manitoba Food Processors Association (MFPA) at The Forks Market in 2003.

Steve Meinek, president of Creative Advantage and mastermind of the Agri-Food Launch Incubator. For five years the company has used the Launch incubator to help Manitoba agri-food businesses.

Agri-Food Launch Incubator Store

See FORKS on page 3

Inside this issue

FDC life any notes

Mandatory labeling for foods in Canada

FDC goes directly to farmers in Brandon

Come visit us!

Got any ideas?

Up close and professional with FDC

APPENDIX V

CAPITAL ACQUISITIONS

In 2002/2003 under the capital acquisitions portion of the strategic plan, FDC purchased the following processing and analytical equipment that brings essential technology to the Centre. The equipment is to be housed in the existing pilot plant, the suites of the new facility being built and the laboratories at FDC.

AMS Foundation Semi-Automatic Filler (A-100)

The semi-automatic volumetric auger filler offers incredible versatility. It fills free-flowing (eg, sugar) and non-free-flowing (eg, wheat flour) dry products as well as liquid products regardless of viscosity, equipped with proper tooling. Its filling range is 100 milligrams to twenty kilograms with accuracy of 1% or better.

Biro Model 6642 Meat Grinder

The Biro meat grinder features a wide-angle bowl and guard for high productivity. It grinds using heat-free technology, permitting meat products to retain their bloom. The large stainless steel feed pan also enhances production. It is used in size reduction operations for meat and poultry. It can also be used for non-meat applications such as frozen berries or frozen potato products.

BROOKFIELD DV-II+ PRO Digital Viscometer

The digital viscometer combines accuracy, reliability and versatility with convenience of electronic sensing, display and output. When controlled by personal computer, the DV-II+ PRO becomes a rheometer with variable speed capability. The viscometer is used to determine flow parameters of liquid and semi-solid foods. It is commonly used in food processing for measuring viscosity of products such as starches, juices, jams, jellies, oils and soups.

Charm LUMinator T ATP Analyzer

The LUM-T analyzer is used for testing sanitary conditions of food processing equipment and areas. The ATP analyzer provides results in seconds, allowing for confirmation of proper sanitation. When results are negative, equipment can be resanitized until acceptable results are achieved. Identifying and isolating a source of contamination in the production process is an essential component of food safety practices, including HACCP. The short testing period in using the ATP analyzer allows for frequent testing and greater control of hazards, resulting in lower risk of releasing contaminated food products. The equipment is durable and employee training requirements are minimal.

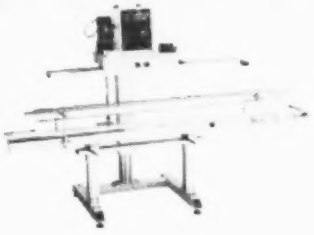
Denver IR-30 Infrared Moisture Analyzer

The IR-30 uses infrared heating and precision weighing for fast, accurate and reliable

moisture determination. It measures moisture or solids content in a range of samples from powders to liquids. The online moisture analysis of food enables the processor to make quality decisions during production and process control.

Emplex MPS 6530 – Conveyorized Continuous Rotary Band Sealer

This continuous rotary band sealer equipped with trimmer, printer and embosser can seal a wide range of heat-sealable bag materials. It has all the features necessary to ensure food safety, high production, efficiency and wide versatility. The sealer is equipped with a coding system for production dates and lot numbers.

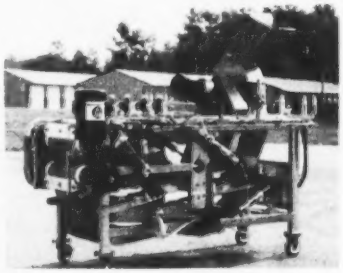


Evolution RC Superspeed Refrigerated Centrifuge

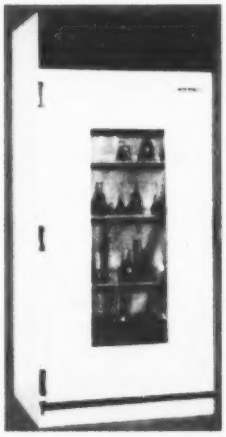
The RC has a variety of features that provide shorter total processing, including the time it takes to load a sample, to set the required parameters, to perform the separation and to unload the sample. The RC achieves high performance levels without dependence on a vacuum system, which leads to fewer maintenance costs. The centrifuge has the fastest processing time in the industry, processing six litres in nine minutes. The centrifuge is used for solid-liquid separation in food process development for clarification of fruit juices and other beverages.

Frontier Technology Inc. (FTI) J-25 Juice Extractor

The juice extractor is designed for the small volume juice or nutrient extraction market. The juice extractor is also a belt press that can accommodate small and medium volumes of fruits and vegetables for processing. It is a self-contained unit including a grinding mill, a press, a clean-in-place system and a juice pump. The J-25 is efficiently and effectively used to extract juice from apples, pears, cranberries, blueberries, carrots, cabbage, pineapples, watermelons, ginger and olives. It can also be used in the production of potato starch, the treatment of wastewater and the dewatering of product slurries.



HOTPACK 417532 Humidity Chamber



The floor model humidity chamber offers precise temperature and humidity control to reproduce environmental conditions for food product research and testing. It features a capacity of 33 cubic feet, with a wide temperature range and a relative humidity range of twenty to ninety per cent. The chamber is used for real time and accelerated shelf life studies for all types of food products. It can also be used for food product stability and packaging testing, food sample storage and incubation of fermented foods.

HUND Modular System H 600 WILOCYT Microscope
The HUND microscope provides bright field, dark field and phase contrast viewing for examination of virtually any food product. It is configured with a trinocular head and a Nikon CoolPix 4500 digital camera for image acquisition. It can be used for microbiological studies, as well as for cleaning and sanitation validation in food safety applications. It is used for examining food microstructure, including in fermented foods.

Langsenkamp Pulper and Finisher
The pulper and finisher is used in preparing seeded fruits and vegetables for juice extraction. It is used to remove seeds without crushing them and contaminating the juice. This laboratory unit is able to handle small and medium volumes of seeded fruits for processing. The unit uses a wide variety of screens to accommodate different sizes of fruits and seeds.

Manitowoc Model QD 0212A Ice Maker
The ice maker is an essential tool for providing a steady supply of ice in laboratory procedures where products must be consistently chilled. The QD 0212A dispenses 220 pounds of small cubes of ice per day.

MOCON PAC CHECK 650 Oxygen / Carbon Dioxide Headspace Analyzer
The headspace analyzer is used for testing the shelf life of packaged food products. The analyzer is used to test oxygen and carbon dioxide levels in the packaged product, which is essential in modifying the atmosphere to achieve the desired conditions for extended shelf life of an item. A rigid piercing fixture is a feature of the instrument that allows for testing canned and jarred food products in addition to foods in flexible packaging. The headspace analyzer is also equipped with an auto sampler and a manual injection port that allow for testing product samples with small headspaces. The headspace analyzer can be used in testing the shelf life of snack foods, bakery products, meat products, cheeses, packaged fruits and vegetables, coffee, juices and carbonated beverages.

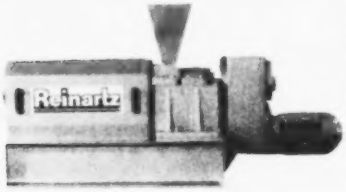
Ohaus Explorer E214 *Pro* Analytical Balance

The Explorer *Pro* standard level balance is designed for simplicity and has an excellent user interface for easy setup and operation. No training is required for setup and operation. The Explorer *Pro* has the features and durability necessary in a sophisticated laboratory setting and Ohaus technology is known for its high quality and longevity. The Explorer *Pro* 214 has a capacity of 210 grams.

PERL Packaging Systems Green Machine Labeler
The Green Machine benchtop semiautomatic labeller easily dispenses pressure sensitive labels to packages and round containers. It can be used with glass or plastic packaging, liquid or semi-solid foods such as jams, jellies and sauces. It can equally be used with dry foods or powders packaged in jars, and a wide variety of foods produced from fruits and vegetables, dairy, meats and cereals and oilseeds.

REINARTZ Screw Press AP 10/06

The screw press is economically advantageous cold pressing equipment for soft oilseeds. Processing capacity for the press is from seventy to 100 kilograms per hour, depending on the type of oilseed. The technology is also equipped with a cooling system. Cold pressing is widely used for vegetable oil production such as canola, sunflower and olive oils. It is the preferred technology for extraction of high quality healthful oils such as hemp, borage, flax, linseed and safflower oils.



Ro-Tap Sieve Shaker

Ro-Tap sieve shakers are the most commonly used sieve shakers for research and development. American Society of Testing Materials (ASTM) uses the equipment in their standards documentation. The equipment is used for fractionation of grains, ground nuts, powders and wet slurries, based on particle size.

Sartorius Competence Series (CP) 4202S Laboratory Balance

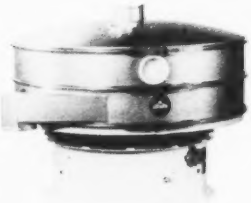
Two of these top-loading balances have been purchased for the food product development laboratory. They are used for highly precise measurement of various food ingredients. They are used in food product research and development where exact amounts of ingredients must be known and documented for exact reproduction of product formulations for commercial development.

Stable Micro Systems TA.XT2*i* Texture Analyzer

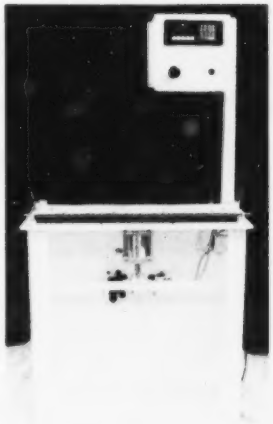
The texture analyzer provides quantifiable data on the physical properties of tested foods. The texture analyzer provides numerical values for measurements of hardness, brittleness, elasticity, fracturability and adhesiveness. Using the texture analyzer for obtaining reliable and accurate property measurements allows for greater quality control in the food production process. The following are examples of applications of the texture analyzer: spreadability and softness of cheese spread; bread firmness and staling over time; dough stickiness; hardness and resistance of cookies to bend or snap; measurement of gel strength of jams, jellies and marmalades; surface stickiness and stringiness of syrups and honeys; firmness of margarines and other spreads; firmness and cutting force of hot dogs and surimi; breaking strength of dry pasta; and fracturability of tortilla chips.

Sweco Vibro-Energy General Round Separator

The Sweco separator is a screen separator applicable for a broad range of materials, wet or dry, fine or coarse, heavy or light. Particles as fine as 400 mesh can be screened at high production rates using the vibrating screen. The equipment is for fractionation of grains, ground nuts and food slurries, based on particle size.



Vertrod 300B Open Back Cabinet Style Heat Sealer



The Vertrod Therm-O-Seal thermal impulse heat sealer is used for sealing or welding layers of thermoplastic films and shearing off the excess film. Applications include fresh or frozen foods packaged in thermoplastic films, such as fruits and vegetables, processed foods and snacks. Packaged foods to be sealed may be solid, semi-solid or liquid foods. The open back design accommodates sealing of packages from convenient entry points.

APPENDIX VI

MANITOBA AGRI-FOOD RESEARCH AND DEVELOPMENT GROUP

The Food Development Centre is a leader in research and development in the agri-food industry. Alphonsus Utioh (FDC) is co-chair of the Manitoba Research and Development Agri-Food Group. The Group is represented by key individuals on behalf of their organizations in Manitoba industry, government and academia.

- Dave Shambrock, MFPA
- Lynn Manaigre, MAF
- Dave Huminicki, Manitoba Hydro
- Allen Sturko, Manitoba Industry, Trade & Mines (ITM)
- Sheri Grift, Agri-Food Research and Development Initiative (ARDI)
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- Rick Holley, AFS – UM
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- Digvir Jayas, VP (Research) – UM
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